**MINISTRY OF EDUCATION AND SCIENCE OF THE REPUBLIC OF KAZAKHSTAN**

**Joint-stock company**

**"S. Seifullin Kazakh Agrotechnical University"**

# REPORT ON SELF-ASSESSMENT OF EDUCATIONAL PROGRAM OF BACHELOR DEGREE - 5B071800 ELECTRIC POWER ENGINEERING, MASTER DEGREE - 6M071800 ELECTRIC POWER ENGINEERING WITHIN THE SPECIALIZED ACCREDITATION OF THE IARA

SAKEN SEIFULLIN UNIVERSITY

# REPORT ON THE SELF-ASSESSMENT OF THE EDUCATIONAL PROGRAM OF BACHELOR DEGREE - 5B071800 ELECTRIC POWER ENGINEERING, MASTER DEGREE - 6M071800 ELECTRIC POWER ENGINEERING FOR SPECIALIZED ACCREDITATION

**ASTANA, 2019**

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## DEFINITIONS AND ABBREVIATIONS

**Undergraduate program**: professional higher education curriculum with a normative mastering period of at least 4 years with the award of academic Bachelor's degree;

**Master's program**: vocational curriculum of postgraduate education with a regulatory period of development of 2 years (scientific and pedagogical areas); 1.5 years (profile direction) with the award of an academic degree of Master of Agriculture in the specialty "Electric Power Engineering";

**Doctoral studies**: professional educational program of postgraduate education, aimed at the preparation of scientific and pedagogical personnel with the award of the degree of Doctor of Philosophy (PhD) or doctor in a profile with a standard term of study of at least 3 years;

**Individual curriculum**: a document compiled annually by a student for the academic year on the basis of the standard curriculum and the catalog of elective disciplines, and containing a list of academic disciplines for which he enrolled and the number of credits or academic hours; the individual curriculum reflects the educational trajectory of a particular student;

**The catalog of elective disciplines**: a document containing a list of academic disciplines, their volume, forms of intermediate control (term papers) determined by the higher educational institution independently, and offered to students for study of their choice;

**Credit technology of education**: educational technology aimed at increasing the level of self-education and creative development of knowledge on the basis of individualization, election of an educational trajectory and accounting for the volume of educational material mastered in the form of credits;

**Component of choice**: a list of academic disciplines and the corresponding minimum amounts of credits or academic hours offered by higher educational institutions, chosen by students independently and studied in any academic period;

**Work curriculum**: a document developed and approved by higher education institutions on the basis of a standard curriculum and individual curricula of students, taking into account the conditions of a particular professional activity, stages of the educational process: it contains a complete list of disciplines grouped into GE cycles, BD and MS as required component, and the component of choice required for the development of students

with the indication of credits or academic hours: the structure of the working curriculum is determined by university independently;

**Syllabus**: a discipline curriculum, which includes a description of the discipline under study, its goals and objectives, a thematic plan reflecting the duration of each topic, a brief summary of them, tasks for independent work, office hour, schedule of midterm control, bibliography, teacher's requirements and assessment criteria;

**Model curriculum**: the main curriculum document developed on the basis of the state compulsory standard of education in the specialty and establishing the mandatory components in the form of a list of academic disciplines, united in the cycles of GE, BD and MS indicating the minimum credits required for the development of students, forms of control, as well as additional types of training and final certification;

**Obligatory component**: a list of academic disciplines and the corresponding minimum volumes of credits established by state compulsory education standards and studied by students in a mandatory manner under the program of study;

**The Department of Academic Affairs**: a service that provides the organization of various types of knowledge control, registers the entire history of students' academic achievements and the calculation of their academic rating, as well as issuing educational documents.

This self-assessment report uses the following abbreviations:

MES RK - Ministry of Education and Science of the Republic of Kazakhstan;

HEI - higher education institution;

KATU - S. Seifullin Kazakh Agrotechnical University;

SCES - State Compulsory Educational Standard;

IARA - Independent Accreditation and Rating Agency;

RW - research work;

SRW - student research work;

PRW – postgraduate research work;

EP - educational program;

ATS - academic teaching staff;

QMS - quality management system;

LA - liberal arts;

BD - basic disciplines;

MS – main subjects;

SSS – student’s self-study;

SSTS – student’s self-study under teacher supervision;

PSTS – postgraduate’s self-study under teacher supervision;

EEEA – external evaluation of educational achievements;

FSC - final state control;

AIC - agro-industrial complex;

RI - Research Institute;

CCS (KVN) - Club of the cheerful and sharp-witted;

CYA - Committee on Youth Affairs;

FSP - faculty of social professions;

MM - mass media;

JSC - joint-stock company;

MC - model curriculum;

TMC - teaching and methodical complex;

ECD - educational complex of the discipline;

MA - Ministry of Agriculture;

WC - working curriculum;

CED - catalog of elective disciplines;

IEP - individual education plan;

ECS - educational complex of the specialty;

EMC - educational and methodical council;

MAP - modular academic program;

C - curriculum;

ME - midterm examination;

PRS - point-rating system;

FE - final examination;

CA - continuous assessment;

AIS - automated information system;

IT - information technology;

SWOT –Strengths Weakness Opportunities Threats;

ISO - International Standards Organization;

LLP - limited liability partnership;

NC - national company;

ECTS - European Credit Transfer System;

QS – Quacguarelli Symonds

EurAsEC - Eurasian Economic Community;

SCADT - State Commission for Academic Degrees and Titles;

RSBSE - Republican state budget-supported enterprise;

UNT - unified national testing;

CTUE - complex test of university entrants;

PM&DM - personnel management and document management;

CC RK - Civil Code of the Republic of Kazakhstan;

DAA - Department of Academic Affairs;

DEW - Department of educational work;

SSC- student service center.

## NORMATIVE REFERENCES

In the implementation of educational programs for the preparation of Bachelor, Master and PhD of the specialty " Electric Power Engineering", the Department of "Electric Power Supply" operates in accordance with the regulatory acts of the Ministry of Education and Science of the Republic of Kazakhstan:

1 Law of the Republic of Kazakhstan dated July 27, 2007 No. 319-III "On Education" (dated July 15, 2011, as amended and supplemented); Model rules for the ongoing monitoring of progress, interim and final certification of students in higher educational institutions (No. 125 of March 18, 2008; amended by order of the Ministry of Education and Science of the Republic of Kazakhstan No. 94 of March 16, 2011);

2 Rules for the organization of the educational process on the credit technology of education (No. 152 of April 20, 2011);

3 Law of the Republic of Kazakhstan “On accreditation in the field of conformity assessment” dated July 5, 2008 No. 61-IV.

4 Rules of accreditation of educational organizations of the Republic of Kazakhstan. Resolution of the Government of the Republic of Kazakhstan dated December 29, 2007 No. 1385.

5 SCES RK 5.04.019-2011 “Higher education. Undergraduate. Basic Provisions”, approved by the order of the Ministry of Education and Science of the Republic of Kazakhstan dated June 17, 2012. No. 261.

6 SCES of the Republic of Kazakhstan. Higher education. Undergraduate. The main provisions confirmed by the resolution of the Government of the Republic of Kazakhstan on August 23, 2012, No. 1080

7 Model rules for admission to educational institutions that implement professional curricula for higher education (approved by the Government of the Republic of Kazakhstan dated January 19, 2012 No. 111, as amended on April 19, 2012 No. 487, dated June 30, 2012 No. 896).

8 Development Program of "S. Seifullin Kazakh Agrotechnical University" JSC for 2011-2015 and others.

## GENERAL INFORMATION

| | |
|---|---|
| **Name of organization of education** | "S. Seifullin Kazakh Agrotechnical University" JSC |
| **Legal Details** | Zhenis (Victory) Avenue, 62, 010000, Astana, Republic of Kazakhstan<br>Tel: 8 7172 317547<br>8 7172 393918<br>Fax: 8 7172 316072<br>E-mail: agun.katu@g.mail.com<br>Website: www.kazatu.kz |
| **University Leader** | Kurishbayev Akylbek Kazhigulovich<br>8 7172 317526 87172 397608<br>Tel: 8 7172 395907 |
| **First Deputy Head** | Abdyrov Aitzhan Mukhamedzhanovich |
| **Contact persons for the preparation of the self-assessment report** | Isenov S.S., Tatkeeva G.G.<br>8 7172 317526 87172 397608<br>Aldabergenova S.S.<br>Тел: 8 7172 395907 |
| **Date of submission of the 1st self-assessment report** | September 01, 2018 |
| **Date of submission of the 2nd reports on self-assessment** | October 01, 2018 |
| **Information about the self-assessment procedure** | The self-assessment procedure was carried out collectively, on the basis of the principles of transparency and publicity. In drawing up the report on self-assessment, the commission was guided by the following methods: quantitative analysis, consistency, objectivity, comparative analysis, theorizing of generalization. The self-assessment report on the subject of institutional accreditation was approved at the meeting of the Academic Council of the University of June 29, 2017 Minutes No. 123 |

# 1 SUMMARY OF ACTIVITIES S.SEIFULLIN KATU

## 1.1 Introduction

"S. Seifullin Kazakh Agrotechnical University" Joint-stock company (hereinafter - S.Seifullin KATU) is a subject of higher professional education of the Republic of Kazakhstan and operates under the Charter, approved by the decision of the sole shareholder of the non-profit joint-stock company and the "National Agrarian Scientific-Educational Center" No. 2 dated 05.02.2018, certificate of state re-registration of a legal entity No. 27738-1901-AK dated July 10, 2007

S.Seifullin KATU is one of the largest multidisciplinary higher educational institutions in Kazakhstan. This university provides training of highly qualified specialists for various sectors of the economy of Kazakhstan, carrying out scientific research and training on their basis highly-qualified personnel.

Academic teaching staff of the university unites 889 full-time teachers, including 81 doctors, 380 candidates of science, 55 doctors of PhD. Training is conducted in 8 faculties, 43 departments on 36 undergraduate majors, 31 postgraduate schools, 23 PhD doctoral studies, as well as in 36 centers and laboratories.

Higher vocational education is acquired in full-time and distant courses, including under the reduced educational program and on the basis of higher education. Depending on the form of study, the period of study is from 2 to 5 years.

On the basis of higher education, graduates of higher educational institutions receive a second higher professional education at the Institute for Advanced Studies and Distance Learning: the period of study is from 2 to 4 years, depending on the form of study.

Over the past few years, our university has been actively improving its position in world rankings. In 2012, for the first time, the university took part in the rating of one of the most authoritative QS agency (Quacguarelli Symonds) according to universities around the world and entered the ranking of 700 best universities, among the 25,000 best universities in the world, in 2013 entered the top 800 world universities. According to the results of the world ranking Webometrics, the site of our university occupies 14,281 positions.

In 2015, in the rating of the Independent Accreditation Agency and the rating of S.Seifullin KATU got the 5th place out of 40 universities of Kazakhstan, among agricultural

universities it got the 1st place. Prize winning places: 12-1st places, 8-2nd places, 10-3rd places. 19 scientists entered the TOP-50 best teachers.

In 2017, in the rating of the Independent Accreditation Agency and the rating of S.Seifullin KATU got prize winning places in the following directions: agricultural sciences – the 2nd place, veterinary science – the 2nd place, art – the 5th place, technical – the 7th place, economy – the 6th place.

Prize winning places: 24-1st places, 18-2nd places, 7-3rd places. The general rating of "Academic teaching staff of the universities of Kazakhstan" - Yeskhozhin D.Z- the11th place.

In 2018 in the National ranking of the demand for universities in Kazakhstan - 2018 S.Seifullin KATU top 20 universities in Kazakhstan ranked the 4th place. In the following areas: agricultural sciences – the 2nd place, veterinary medicine – the 2nd place, art – the 8th place, technical – the 8th place, economy – the 6th place, services – the 7th place. Prize winning places: 17- 1st places, 19-2nd places, 15-3rd places. 6 university professors were included in the general rating of "Academic teaching staff of the universities of the Republic of Kazakhstan", the top - 50:

In 2017, in the Republican rating agency "General ranking of universities - 2017" S.Seifullin KATU" JSC got the 11th place. Prize winning places: 32 -1st places, 33 – 2nd places, 12 – 3rd places.

In 2018, in the Republican rating agency "Kazakhstan-2050 - National rating for innovation and academic excellence "S.Seifullin KATU" JSC got the 2nd place among agricultural universities. Prize winning places: 39 - 1st places, 17 – 2nd places, 18 – 3rd places

In 2015-2017, 47 employees and students of the university took part in the Bolashak program; since 2006, the teachers of our university have participated in the contest "The best teacher. During the reporting period, 4 teachers received a grant "The Best Teacher".

In the period from the 2016-17 academic year S.Seifullin KATU concluded 75 cooperation agreements and memorandums of understanding, 45 of them for the 2016-2017 academic year and 30 for the 2017-2018 academic year. Foreign partners of S.Seifullin KATU are the universities, organizations and research centers of the following countries: the USA, Canada, Germany, Italy, Hungary, Poland, Romania, Latvia, Turkey, Serbia, China, Korea, Belarus, Russia, Mongolia, and others.

In the 2016-2017 academic year for the attraction of foreign scholars, no budget funds were allocated. However, KATU has accomplished the work on finding other ways to attract foreign scientists to the university's educational activities. So, in 2016, 4 foreign scientists

gave lectures for students of KATU in the framework of the Fulbright program of the US Embassy, as part of the EU Erasmus + program and free of charge. Along with foreign teachers, in 2016, 6 experts from the University of California Davis (5 people) and the University of Arkansas (1 person) (USA) visited KATU to jointly develop 2 graduate educational programs as part of the SPIID (State Program of Industrial-Innovative Development). In addition, from 15 to 24 October 2016, KATU was visited by Honorary Professor Paul Singh from the University of California at Davis (USA) to conduct seminars and master classes for teachers, specialists and students of KATU also within the framework of the SPIID.

In 2016, research work was carried out in the framework of grant, program-targeted funding and contracts with business entities in the amount of 92 projects to the tune of 552,333.94 thousand tenge, in the final 2017 in connection with sequestration by the Ministry of Education and Science of the Republic of Kazakhstan grant financing under the budget program "217" on average by 10% of the total amount amounted to 507,486.3 thousand tenge.

According to the results of the research work of the teaching staff of the university, the number of scientific articles published in journals with non-zero impact factor included in the Web of Science and Scopus database in 2017 is 120, which is 26% more than in 2016 and the impact factor of the article published in the journal Thomson Reuters 4.30.

As of August 1, 2017, in the journals with impact factor (in the Web of Science (Thomson Reuters) and Scopus database) 52 articles were published and 10 Eurasian patents were received.

As of August 1, 2018, 46 research projects and programs and agreements with economic entities amounting to 459,470.35 thousand tenge were implemented at the university within the framework of the budget program 217 "Development of Science", including:

- 1 scientific and technical program and 1 project in the framework of the NTP RSE "National Center for Biotechnology" sub-program 101 "Program-targeted financing of subjects of scientific and / or scientific and technical activities" (MES RK) totaling 118,000.00 thousand tenge ;

- 24 projects under subprogram 102 “Grant financing of scientific research” of the MES RK on priorities “Sustainable development of the agro-industrial complex and safety of agricultural products” (9 projects), “Life Science” (7 projects) “Rational use of natural resources” (3 projects), "Scientific basis" Mangilik Yel (education of the 21$^{st}$ century, basic

and applied research in the field of humanities) "(3 projects)," Energy and mechanical engineering "(2 projects) for 195003,26 thousand tenge;

- 2 projects on program-oriented financing of the Ministry of Agriculture of the Republic of Kazakhstan in the amount of 32,000.00 thousand tenge;

- 2 international projects: 1 joint project with the Xinjiang Institute of Ecology and Geography of the Academy of Sciences of the People's Republic of China "Joint technical research on the creation of environmental protection in developing cities of the Silk Road Economic Belt of China and Kazakhstan" and 1 joint project with Shissen "Transfer of highly productive foreign varieties of potatoes for virus-free seed production in Northern and Central Kazakhstan "for a total amount of 4848.71 thousand tenge;

- 16 contracts with economic entities for research and development in the amount of 109618.39 thousand tenge.

**1.2 History S. Seifullin KATU**

"S. Seifullin Kazakh Agrotechnical University" JSC was founded in 1957, when in the center of a vast virgin region in Akmolinsk by Resolution of the Council of Ministers of the USSR No. 1176 of October 3, 1957 Akmola Agricultural Institute was organized.

The decision to open the institute was associated with the wide development of virgin and fallow lands in Kazakhstan, the opening of hundreds of new state farms and, as a result, the need for highly qualified specialists. Specialists were trained in three faculties: agronomic, land management and agricultural mechanization. The first admission was organized in 1958 and amounted to 250 students.

The Institute gradually expanded, becoming a major center of higher agricultural education and science. Over the next 20 years, other faculties were organized and opened.

In 1996, by Government Decree No. 573 of May 7, 1996, Akmola Agricultural Institute was reorganized into Akmola Agrarian University, it was named after the prominent personality of the Kazakh people, a prominent public figure Saken Seifullin.

On the basis of the Resolution of the Government of the Republic of Kazakhstan No. 821 dated July 15, 2001, the State Enterprise “ S. Seifullin Akmola Agrarian University” was renamed “ S. Seifullin Kazakh Agrarian University” JSC.

On May 20, 2003, the S. Seifullin Kazakh Agrarian University CJSC changed the type of society and acquired the abbreviation of “S. Seifullin Kazakh Agrarian University” OJSC.

In 2004, on the basis of the Decree of the Government of the Republic of Kazakhstan (No. 829 dated August 3, 2004), “S.Seifullin Kazakh Agrarian University” OJSC was

liquidated and the RSE “S.Seifullin Kazakh State Agrotechnical University” was established on the basis of economic management.

By the Decree of the Government of the Republic of Kazakhstan "Certain Issues of the Ministry of Education and Science of the Republic of Kazakhstan" (No. 300 dated April 4, 2005) the RSE "S.Seifullin Kazakh State Technical University" was transferred on the right of economic management to the Ministry of Agriculture of the Republic of Kazakhstan.

In 2007, on the basis of the Decree of the Government of the Republic of Kazakhstan (No. 409 of May 22, 2007), the university was reorganized into “S. Seifullin Kazakh Agrotechnical University” JSC.

Since 2012, science has become the main priority in the development of KATU activities. As a strategic goal, a phased transformation was established in a modern research university of international level in the field of agriculture.

Speaking on May 23, 2013 at the 26th Plenary meeting of the Council of Foreign Investors, President of the Republic of Kazakhstan N. Nazarbayev for the first time voiced a proposal to create a research university of international level in the field of agriculture on the basis of KATU, following the example of Nazarbayev University. This time can be considered as the starting point for the reform of S.Seifullin KATU.

Distinctive features of the new status will be:

1) an autonomous model of management following the example of the leading research agricultural universities of the world, combining scientific research, training and implementation of scientific results in real production and focused on integration into the global scientific and educational space;

2) own academic programs based on the adaptation of the best programs in the world, with a focus on the development of practical skills in the application of advanced achievements in the industry;

3) breakthrough scientific research combining advanced achievements of fundamental and applied science, integrated into the educational process and based on partnership with world technological leaders;

4) a developed toolkit for the introduction of innovations, based on constant "feedback" with the subjects of the AIC, including both mechanisms for the commercialization of technologies and the dissemination of knowledge.

Attracting leading foreign professors and scientists, combining their knowledge with the experience of domestic specialists, the necessary competences in all key areas of the

agroindustrial complex will be gained. As a result, upon completion of the transformation into the Research Agrarian University, KATU. S.Seifullin is positioned as (1) the main supplier of competitive innovations for the agroindustrial complex in North and Central Kazakhstan, (2) the most desirable place of employment for teachers and the most desired place of study for students, (3) undergraduates and doctoral students in relevant specialties.

The main subjects of activities of the university are:

- personnel training with higher and postgraduate professional education, advanced training and retraining of personnel in the field of agriculture and other sectors of the economy;

- carrying out research and development work in the field of the agro-industrial complex and other sectors of the economy;

- introduction of scientific and technical developments in production.

The main activities of the university are:

1) training in accordance with the state compulsory education standard of qualified specialists for various sectors of the economy and social spheres;

2) training of scientific and pedagogical personnel in postgraduate, doctoral studies;

3) the organization and conduct of fundamental, applied research and development work, as well as methodological research in all fields of science;

4) professional development and retraining of specialists in various fields;

5) cultural and educational activities, participation in the process of mutual enrichment of the cultures of the peoples of Kazakhstan, dissemination and promotion of scientific knowledge;

6) the production and sale of printing products, teaching and methodological manuals, new technologies and scientific developments;

7) the organization and conduct of sports and recreational and sports activities, the creation of sports sections;

8) the conclusion with foreign organizations of direct contracts and contracts in all areas of primary activity, the creation of temporary teams of scientists and specialists, participation in the activities of international associations and organizations.

**1.3 History of the department.**

The Department of "Electric Power Supply" was organized in 1969 on the basis of the department of “Electrification of agriculture”, headed by the State Prize Laureate MI Karlinskaya from the first years of its foundation, sent to Akmola by Academy of Communal

Services of Moscow. The Department of "Electric Power Supply" led training in the specialization of "Electrification of Agriculture".

The specialty (hereinafter cluster) 5B071800 - "Electric Power Engineering", 6M071800 - "Electric Power Engineering" belong to the group of high-tech, innovative and in demand among university entrants and employers of the Republic of Kazakhstan. This fact is confirmed by consistently high semi-pass points for receiving state grants in both the state and Russian languages.

Since 2018 the Department of “Electric Power supply” is a graduating department on the specialty of “Electric Power Engineering” bachelor 5B071800, master 6M071800 and doctoral 6D071800 "Electric Power Engineering".

The main activities of the department are conducting research and teaching disciplines in the field of Electric Power Engineering.

The educational program "Electric Power Engineering", implemented by the department "Electric Power Supply" is consistent with the strategy, mission, vision and values of the university. The content and form of EP, decisions made by the management of the department "Electric Power Supply" on the management of EP are consistent with the strategic documents of the university. The goals that are set by the Department of "Electric Power Supply", coincide with the strategic goals of the university and do not contradict them.

The success of the educational program implementation is determined by the planned, purposeful and effective implementation of the goals and development plan of the above-mentioned cluster developed with the involvement of all stakeholders of the program, taking into account the analysis of student satisfaction and teaching staff / employees, the analysis of available and necessary resources technical base.

S.Seifullin KATU participates in ratings, such as the national rating of demand for universities of the Republic of Kazakhstan, where the quality of educational programs is assessed by levels and areas of training (IARA) and the rating of the Republican rating agency Kazakhstan 2050 - National Rating for Innovation and Academic Excellence. So, in the period from 2016-2018, S.Seifullin KATU on educational programs of a bachelor degree 5B071800 and master degree 6M071800 "Electric Power Engineering" got 1-5 places.

## 2 MANAGEMENT OF EDUCATIONAL PROGRAM

Currently, the Saken Seifullin Kazakh Agrotechnical Universityis a single educational, scientific and methodological complex, which includes a system of university and postgraduate training. Training is conducted in 36 undergraduate majors, 31 graduate and 23 PhD doctoral programs.

The university has identified priority areas in the field of education. This is a high-quality training of specialists, an increase in competitiveness and university rankings, both at the republican and international levels, successful integration into the world educational and scientific space. Now the university has the necessary equipment and modern technology and equipment for the qualitative preparation of a competitive specialist. With the active participation of employers, a modular educational program on the specialties were developed.

According to the instructions of the President of the Republic of Kazakhstan N.A. Nazarbayev, on the basis of S.Seifullin KATU will be created the country's first world-class research university in the field of agriculture.

The quality of training is the main goal of the university and a prerequisite for competitiveness in the market of educational services.

S. Seifullin Kazakh Agrotechnical University is a full member of the Great Charter of Universities, signed on September 17, 2009 at the 21st International Conference in Bologna (Italy), which is the basis for the formation of a single European educational space.

In 2014, the university passed institutional accreditation by the Independent Accreditation and Rating Agency (IARA).

S. Seifullin Kazakh Agrotechnical University entered the international QS rating, 800 best universities in the world are in the TOP, annually noted in the webometriks ranking.

The University has developed a strategic development plan for Saken Seifullin Kazakh Agrotechnical University "KATU - 2025". The strategic directions of the plan are structured and correspond to the main provisions of the regulatory legal acts of the Republic of Kazakhstan, including the Law of the Republic of Kazakhstan “On Education”, the State Program “Forced Innovative-Industrial Development of the Republic of Kazakhstan”, the Law of the Republic of Kazakhstan “On Science”.

In accordance with the Strategic Plan, the University’s Mission is formulated as follows:

The mission of KATU is the generation, implementation, dissemination and application of advanced knowledge to improve the quality of life, increase labor productivity and competitiveness of the agroindustrial complex and other sectors of the economy of Kazakhstan.

The KATU strategy until 2025 is to build the best in Kazakhstan system that meets international standards of advanced training of specialists and scientific and pedagogical personnel by providing wide opportunities for choosing the level, content, form and terms of training based on unique curricula and academic mobility.

As a matter of priority, KATU will develop cooperation with organizations-consumers of scientific research and graduate employers at all stages: from the joint setting of priority tasks to the introduction of scientific results into practice.

The strategic goals of KATU until 2025 are:

• improving positions in international university rankings - joining (1) among the top 300 universities in the world by QS rating and (2) among the top 500 universities in the world by THE rating;

• employment in the specialty within three months after completion of training, confirmed by independent sources - at least 60% of graduates;

• the average citation index of one publication according to the Web of Science database is at least 2;

• share in total income of income (1) from research activities - at least 30%, (2) from the introduction of scientific results - at least 12.5%;

• International accreditation of at least 50% of educational curricula.

Achievement of strategic objectives will be accomplished through decision of the following tasks:

• reorganization of KATU into an autonomous educational organization;

• Achieving and maintaining the highest qualifications of faculty, administrative and support staff;

• expansion of research, transfer of advanced knowledge and technologies in the areas of highest priority for Kazakhstan;

• modernization of the educational process by introducing unique educational curricula developed on the basis of its own scientific results with the participation of employers, leading domestic and foreign professors and scientists;

• development of multilingual education and the formation of an English-language language environment in order to transfer the missing competencies and prepare graduates in accordance with generally accepted standards in the world;

• expansion of international cooperation with the world's leading research universities and research centers in the framework of academic mobility, research and innovation projects;

• modernization and expansion of educational, research, production and experimental and social infrastructure to improve the educational process, living conditions of students and faculty;

• constant updating of civil-educational and cultural work aimed at the formation of a comprehensively developed, creative personality;

• formation of a stable opinion in society about the prestige and elitism of education in KATU.

The successes of KATU, which positions itself, in accordance with its mission that is to ensure the sustainable development of the University, and to increase customer satisfaction in educational services, have received various awards, including international ones.

The quality policy is established in order to serve as a guide for the university. It determines the desired results, promotes the use of resources by the organization to achieve these results. The quality policy provides the basis for the development and analysis of quality objectives. Quality objectives are consistent with the Quality Policy and commitment to continually improving all processes identified at the University.

Achieving quality objectives has a positive impact on the quality of educational services, performance and financial performance and, therefore, on satisfaction and trust of stakeholders.

On the basis of the strategic plan and the mission of the University, a strategic development plan was developed for the department of "Electric Power Engineering Supply" for the period 2018-2020, including the development of EP.

The strategic development plan of the department is fully correlated with the strategic development plan of the University.

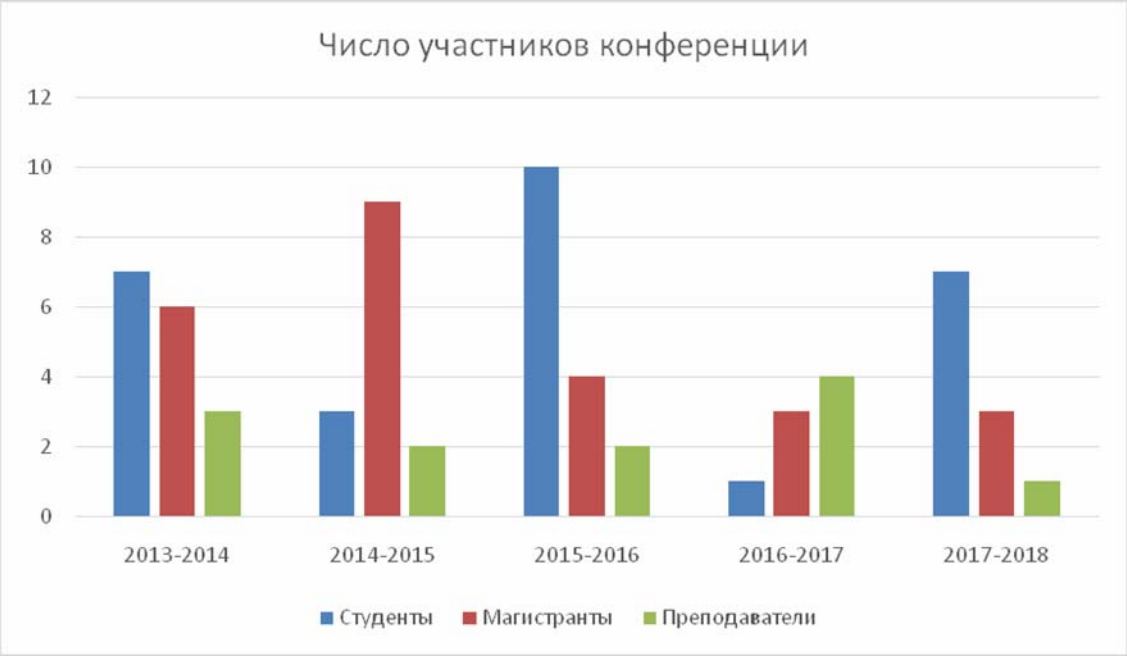
The staff of the department, the material and technical base of the specialty "Electric Power Engineering" contribute to the successful functioning of the educational program in accordance with the national development priorities and strategies of the university.

Applied research is being conducted at the department, experimental and development work is being carried out. Research ends with the development of experimental and experimental samples, the development of methods and recommendations.

The results of the research work of the department are published in the form of articles in journals and reports at conferences of various levels. In the period from 2013-2018. published in peer-reviewed international scientific journals with non-zero impact factor in the JCR or non-zero citation index SJR-5, scientific journals included in the list of publications recommended by the CCES RK-26, 3 monographs, 7 textbooks (tutorials), 31 reports at international and republican conferences were published (Appendix 3.1–3.69).

Students of the specialty "Electric Power Engineering" annually participate and submit research works to the republican contest and contest of the Foundation of the First President of the Republic of Kazakhstan, for example, Anna Matasova, student gr.15-04 got the 3rd place in the Republican contest in 2017.

Below is a diagram of the annual participation of students, undergraduates and faculty members in international and republican scientific and theoretical conferences.




The academic teaching staff mostly consists of Doctors and Candidates of sciences. The team of scientific and pedagogical personnel annually develops innovative projects aimed at improvement, participating in competitions organized by the MES RK. Research work is carried out on innovative topics: “Development of innovative technologies to improve the

efficiency of the work of auxiliary needs of 6 kV Electric Power Engineering plants", 2015-2017; "Development of innovative technologies to improve the efficiency of Electric Power Engineering supply to electrical consumers with voltage up to 1000 V of mining enterprises", for 2018-2020 under the supervision of Professor B. Utegulov.

Applications for participation in the competition of projects of the Ministry of Education and Science of the Republic of Kazakhstan were initiated:

1) B. Bayniyazov "To develop selective current protection without time lag of 35/10 kV substations";

2) D. Akhmetbayev "Improving the energy efficiency of the Electric Power Engineering supply system by improving the control algorithms for its modes";

3) B. Utegulov "Development of innovative technologies for increasing the efficiency of Electric Power Engineering supply to electrical consumers with voltage up to 1000 V of mining enterprises";

4) B. Utegulov "Development of innovative protection technologies from single-phase short circuit to earth in electric networks with voltage of 6-20 kV in mining, industrial and rural enterprises".

The activities of state budget research projects under the grant of the MES RK were carried out:

1. "Development of methods and means of technical support of electrical safety in networks with voltage up to 1000 V of mining enterprises", with a funding volume of 13,000.00 tenge, 2012-2013;

2. "Development of innovative technologies to improve the efficiency of the work of auxiliary needs of 6 kV Electric Power Engineering stations", with a financing volume of 45,000.00 tenge, 2015-2017.

Currently, the state budget research project is being carried out: "Development of innovative technologies for increasing the efficiency of Electric Power Engineering supply to electrical receivers with voltage up to 1000 V of mining enterprises", with a funding volume of 30,000.00 tenge, for 2018-2020 under the supervision of Professor B. Utegulov.

The university has signed over 200 contracts and memorandums of cooperation with universities and research centers from 35 countries of the world. A full list of treaties and memorandums of S. Seifullin KATU with foreign universities is presented on the university website in the international cooperation section, and the main directions for the development of international cooperation are also presented.

The implementation of the educational program in the specialty "Electric Power Engineering" is carried out by the department "Electric Power Supply" in accordance with the following tasks:

- mastering students of professional skills in the field of Electric Power Engineering;
- increasing the level of quality of education in accordance with the requirements of domestic and international standards;
- mastering advanced innovative technologies and their implementation in the educational process;
- organization and conduct of research activities in the field of Electric Power Engineering.

The educational program in the specialty "Electric Power Engineering" provides the conditions for:

- high-quality mastering of professional skills in the field of Electric Power Engineering, the formation of fundamental theoretical training of future bachelors for the transition to the second level of higher professional education (magistracy);
- formation of graduates' competitiveness in the labor market for the fastest possible employment in the specialty, as well as professional and career growth.

Training in the educational program of the specialty "Electric Power Engineering" implies the active use of modern educational technologies that help effectively implement new methods in the educational process. A graduate of the specialty "Electric Power Engineering" must understand that modern society and production after graduation will present him with a certain set of requirements: to be mobile, dynamic, able to adapt to continuously changing working conditions; in the process of learning, he is motivated to perform independent work in the disciplines studied.

The quality of education in the specialty "Electric Power Engineering" is confirmed by the high percentage (85%) of graduates' employment, the interest of applicants to this specialty, international universities and research institutes. The improvement of the EP is ensured by constant contact with employers.

The objectives of the educational program 5B071800 "Electric Power Engineering":

- educational (improving the quality of educational services through the introduction of modern educational technologies);
-educational (improving the quality of patriotic, international, political, legal, aesthetic education, the formation of a healthy lifestyle).

The strategic goal of the study program is the development of the department as one of the centers of higher technical and postgraduate education, science and engineering of Kazakhstan in the Electric Power Engineering industry with further international positioning.

The demand for the specialty and its prospects gives rise to a significant interest of applicants to this specialty: the annual UNT passing score for this specialty is 88-94 points, and the set has reached, for example, for the 2018/2019 academic year to 156 people.

The goal of the EP meets the needs of the state, employers of individuals and students. The needs of the state are determined by the annual state order, which increases every year, and in the year 2018/2019 in the specialty “Electric Power Engineering” amounted to 1030 grants, and by the state order KATU receives 10 percent or more of the total state order annually. In Kazakhstan, more than 30 universities are trained in this specialty.

The presence of subject-specific and interdisciplinary competencies is ensured through the implementation of requirements for general education in basic and core cycles of academic disciplines, socio-ethical, economic, organizational, managerial and professional competencies.

It is a concept of interdisciplinary competencies.

Plans for the development of educational programs in the specialties of bachelor and master 5B071800 / 6M071800 "Electric Power Engineering" are developed on the analysis of the above educational programs and are publicly discussed at a meeting of the department and council of the energy department with representatives of all stakeholders (Appendices 4.1-4.3).

The development plan and the objectives of the EP is developed in accordance with national development priorities. One of the seven long-term priorities of the Development Strategy of the Republic of Kazakhstan until 2030 is energy resources. Representatives of production are involved in the development of the educational program development plan: Director of Tavrida Electric Astana LLP Makharov B.K., General Director of TekhKom LLP AS Syzdykov, Director of NPF Energoservice LLP Karimov KS, Director of LLP ARMADA SV ”E. Vakhrushev, Head of the Safety and Security Department of KEGOC JSC Appakov N.T. and others.

The development plan of EP contributes to the development of personal qualities for bachelors, as well as the formation of general cultural universal (general scientific, social and personal, instrumental) and professional competences in accordance with the requirements of

the standard in the direction of training "Electric Power Engineering industry", the formation of professional competencies.

In drawing up an EP development plan, security was considered with all the necessary resources for the implementation of this EP. To inform all interested parties, the University's website www.kazatu.kz hosts an approved EP development plan, draft discipline work plans, academic calendars and lists of elective disciplines. The library has the catalogs of elective disciplines.

In terms of the development of educational programs of the specialty "Electric Power Engineering industry" the following were taken into account:

- compliance with the period of training, graduate qualifications, the complexity of training, structure, terminological apparatus and a number of other provisions, the main educational program;

- the continuity of the scientific foundations of the educational process, laid down in the educational program, the traditional foundations of the education system, in particular, the principle of unity of education, upbringing and education, an integrated approach to the organization of the educational process and the theory of phased knowledge generation, skills and abilities of students;

- pedagogical traditions of the university, aimed at training high-quality cadres of a wide profile, taking into consideration the specifics of the functioning of the country's economy in modern social conditions;

- representation of the system of higher professional education as a step in the system of continuing professional education, the totality of educational institutions of which provides training for professional personnel;

- competence-oriented orientation of the whole pedagogical system and each of its elements, considering competence as a system of knowledge, skills, abilities, work experience and personal professionally oriented qualities of a graduate.

At the end of the school year, at the meeting of the department with the participation of all stakeholders (teaching staff, employers), a self-assessment of the EP is carried out, taking into consideration the changes made, the achieved results, the effectiveness and efficiency of the EP implementation are discussed.

S.Seifullin KATU documented all the main business processes that regulate the implementation of EP in the form of organization standards, guidelines and regulations. Each employee of the department has access to the QMS documents, the information is confirmed

by the signature on the familiarization sheet. The minutes of the department meetings, individual plans of teachers after the 5-year period shall be archived for storage.

The university has developed job descriptions for the department staff (head, professors, assistant professors, senior lecturers, assistants, laboratory assistants), with whom all staff members in the familiarization sheet are familiar with and have free access to them.

The content, management structure, number of faculty members and documents regulating the activity of the EP are periodically reviewed depending on changes in the legislative base and taking into consideration the views of employers at least once a year and they are amended accordingly.

Internal quality assurance of education should cover the monitoring and periodic evaluation of programs and academic qualifications, assessment of the level of knowledge, skills and competencies of students, qualifications and competence of teachers, quality of educational resources, organization and management of the university. In addition, the university collects and analyzes information on the implementation of programs and activities of the institution as a whole and uses it both to effectively manage the training programs and to inform all interested parties about the quality of the programs implemented and the compliance of the assigned qualifications.

The quality management system (QMS) is considered as an important tool for ensuring the quality of education. The QMS department has developed job descriptions for the department's employees (head, professors, associate professors, senior lecturers, assistants, laboratory assistants) with whom all staff members in the familiarization sheet are familiarized and have free access to them.

In the system of activities, as a predominant type of activity of graduates of the specialty "Electric Power Engineering", industrial, technological and design activities have been adopted. In addition to these main activities, it is necessary to prepare the graduate to the basics of organizational, managerial, research and service-operational types of professional activity. The emphasis on preparing for a particular type of activity is consistent with employers.

The main conceptual provisions of the development of the department "Electric Power Supply":

1 improvement of the quality of the activities of the department through the formation of the trajectory of educational services;

2 development and deepening of applied research, innovation;

3 development and implementation of innovative technologies in the educational, educational and research processes;

4 creation of strong and productive ties with energy enterprises, leading domestic and foreign universities and research centers.

For educational activities, as well as for any other, specific risks peculiar only to it are characteristic. This should be taken into consideration when developing measures to manage these risks. Consequently, risk management methods must be adjusted in accordance with the tasks set for them. There is a need to develop a model that would allow to effectively manage emerging risks in educational institutions, taking into consideration the specific features of educational activities. Speaking about the specific features of educational activities, it is necessary to distinguish the intangibility of educational services, which is manifested in the impossibility of assessing their quality and volume until full acquisition, that is, until the graduate receives a certain specialty, defending graduation qualification work. Another distinctive feature of educational services is the impossibility of their direct monetary measurement. The price mechanism is often unable to objectively assess the cost of educational services, which is associated with the difficulty of reflecting all the costs of the implementation of educational activities. There are other features of educational activities. Each of them has certain categories of risks, which, in turn, are analyzed and managed by different methods.

Risks of educational activities:

1 Insufficient number of applicants;

2 Insufficient provision of the level of quality of educational services;

3 Inadequacy of educational and methodological support to modern requirements;

4 Insufficient financing of educational activities;

5 Lack of qualified teaching staff;

6 Insufficient information support of the educational process;

7 Changes in the market for educational services;

8 Increase the cost of educational services;

9 Making the wrong strategic decisions;

10 Incorrect allocation of budget funds;

11 Losses associated with incompetence of teaching staff.

Risk analysis is focused on promoting risk understanding. It provides data for risk assessment and decision making regarding the need to consider risks and the most appropriate

strategies and methods of consideration. At the end of the school year, process managers provide a risk management report to the quality service. After submitting reports, SC conducts risk management analysis once a year. Until November 1 of this year, heads of departments are developing a risk management plan. In July, over the past academic year, each process manager provides a report according to the risk management plan. The risk map, the risk management plan are reviewed and approved by the Management Board of ЭS.Seifullin KATU" JSC in December of the current year.

The approved risk management plan and risk map are submitted to the Board of Directors for consideration by the First Deputy Chairman of the Management Board.

Risk monitoring is about controlling the level of risk. This is achieved by updating on a regular basis (once a year) information about risks, risk management measures, the status of implementation of measures, as well as tracking the degree of influence and probability of occurrence of risks developed earlier at the stage of identification and risk assessment.

In connection with the reduction of classroom hours for the effective implementation of the credit technology of education, the use of innovative teaching methods is of particular importance. Ways to improve the existing base of innovative methods and teaching aids are considered at meetings of the EMC. The experience of introducing the most relevant and effective methods becomes the object of exchange between teachers through conducting university-wide weekly seminars, master classes and open classes. This is recorded in the relevant protocols, mutual visits of teachers and reflected in the plans of the EMC, the minutes of department meetings. Innovative methods are the use of computer technology and computer programs for teaching practice-oriented disciplines. Technological support of students of the studied educational programs is carried out as follows: interactive teaching methods are actively used when carrying out laboratory work based on virtual and software-hardware laboratory-practical complexes.

The faculty of the Department of “Electric Power Supply” conducts master-classes, demonstration lessons, seminars, the information is presented in table 1.

Table 1 - Master classes, demonstration lessons, and seminars of the Department of "Electric Power Supply"

| № | Name | Theme | Type of class | Date |
|---|---|---|---|---|
| 1 | Cand. of Tech. Sci., | The development of digital | seminar | October201 |

| | | | | |
|---|---|---|---|---|
| | V. Krasnikov | applications on special disciplines of the department in the system of Multimedia Builder | | 3 |
| 2 | Doctor of Tech. Sci., Professor,I. Tuganbayev | The methods of teaching the course of Theoretical foundations of electrical engineering for students of the specialty “Electric Electric Power Engineering Engineering” | seminar | March 2014 |
| 3 | Doctor of Tech. Sci., Professor,I.Tuganbayev | Three-phase circuits | Master-class | 05.11.2014. |
| 4 | Cand. of Tech. Sci., Assistant lecturer, Professor A. Uakhitova | Mathematical tools in Modelling process | demonstration lesson | 20.10.2016 |
| 5 | Cand. of Tech. Sci., E. Sarsekeyev | The transport problem in the electric Electric Power Engineering industry | demonstration lesson | 09.11.2016. |
| 6 | Cand. of Tech. Sci., E. Sarsekeyev | Fuzzy controls in control systems and their implementation in a software environment | demonstration lesson | 15.11.2017. |
| 7 | Cand. of Tech. Sci., E. Gerasimenko | Graphene - the material that can change the world | demonstration lesson | 08.12. 2017. |

In accordance with the requirements of production, the university annually processes the RUE of all forms of education and catalogs of elective disciplines, which are agreed with the enterprises. Leading specialists of enterprises are involved as part-time teachers in in-depth special courses, as well as to guide professional practice and graduation projects

The internship, feedback from employers on students of the specialty are positive. The educational program "Electric Power Engineering" is aimed at continuous improvement of the

image of the program among consumers of educational services, the introduction of innovative learning technologies.

Employers note that graduates of EP have a fairly high level of general education, a good level of professional knowledge and competencies, and they have innovative methods and modern information technologies.

Innovative proposals from stakeholders for the improvement of EP activities can also be received through communicative means of communication (on the official blog www.kazatu.kz, e-mail communication, interviews with potential employers), and in person (during reception hours of visitors; presentations at the Academic and the Board of Trustees of the university, questioning employers during the alumni fair).

The University's website has a Rector's Blog, at which any student, or parents, or any interested person can ask a question to the university's management, to the administration of the EP, and to receive a qualified answer. The administration of the university regularly answers the questions, the website of the university contains questions and answers since 2011) http://kazatu.kz/blog/?mode=1&lang=ru&god=2011.

The head of the EP, ie, the head of the department of "Electric Power Supply", Ph.D., professor, Tatkeyeva G.G. receives daily, always available, open to visitors. The transparency of personnel disciplines is ensured by a competition for vacancies and recertification.

With the aim of greater accessibility and openness, the university has a feedback and information system. As communicative means of communication (official blog www.kazatu.kz, e-mail communication, interviews with potential employers), and personally (at the time of receiving visitors; speaking at the Academic and Trustee Councils of the university, questioning employers during the graduate fair).

In order to take into consideration, the interests of employers in the development of educational programs in the formation of catalogs of elective disciplines, potential employers and heads of practical bases are actively involved. Such participation in the specialty is provided in the following forms:

1) conducting round tables with heads of enterprises;

2) inviting potential employers to educational seminars and department meetings where the working curricula of specialties, the catalog of elective disciplines are discussed.

3) review and examination of catalogs of elective disciplines and curricula of elective disciplines.

4) conducting a survey of potential employers, heads of practice bases and practitioners for the formation of professional competencies of the graduate specialty.

The education management program is designed to build and expand knowledge and competence in the theory and practice of managing educational institutions and their departments in the context of modernizing the system of general and vocational education. The manager in education is a multidisciplinary manager responsible for personnel, accountability, systematic character of the pedagogical process, quality of educational services and competitiveness of an educational institution. The head of the OP, i.e. the head of the department "Electric Power Supply",Doctor of Tech. Sci., Corresponding member of NAS RK Tatkeyeva G.G. passed advanced training "Management in education" at Nazarbayev University and universities of Germany and the Netherlands.

The specialty "Electric Power Industry" carries out the processes of strategic planning and distribution of tasks, in accordance with the development of educational services in the Republic of Kazakhstan, in accordance with the stated mission, goals and objectives, systematically collects, accumulates and analyzes information about its activities; evaluates strengths and weaknesses.

Analysis of the activities of the department in accordance with the criteria for accreditation of the specialty showed that:

- The Department of "Electric Power Supply" has a clearly formulated and clear mission, implemented in accordance with national and regional priorities, clearly defining the purpose and strategy of its development;

- mission, goals and objectives are carried out within the framework of certain development priorities, for which appropriate financial, human and material resources are allocated to ensure implementation in the changing external socio-economic environment.

At the end of the academic year, the head of the department prepares a report on the work of the department, which helps management track the implementation of the development plan for EP. In case of detection by the leadership of the inconsistency of the implemented EP to the implementation plan, the development plan is re-examined at the department meeting with the participation of all interested parties, and corrections are made to it, corrective and preventive actions are developed.

SWOT analysis according to the standard "Management of the educational program" is given in Table 2.

Table 2 - SWOT analysis according to the standard "Management of Educational program"

| Strengths | Weaknesses |
|---|---|
| - availability of doctoral studies (PhD);<br>- the presence of the developed strategic plans of the university;<br>- compliance with the strategic plans of the mission, goals and objectives of the university;<br>- the presence of the developed concept of the development of the university;<br>- educational infrastructure of three-stage training of specialists is developed;<br>- a full educational and methodological support of the educational process is developed<br>- e-learning infrastructure is developed<br>- technology of social partnership university-employer is developed<br>- the process of coordination of curricula for higher and postgraduate education with stakeholders (employers) has been developed<br>- there is a mechanism for internal quality assessment and examination of educational programs | - a large number of students;<br>- high average age of teaching staff;<br>- shortage of teachers in graduating departments who are able to conduct classes in a foreign language;<br>- a weak influx of young teachers with academic degrees and titles from other universities. |
| Strengths | Weaknesses |
| - potential demand for graduates of the specialty "Electric Power Engineering";<br>- favorable competitive environment in the market of educational services;<br>- recognition of the university by the public as a training center;<br>- adoption by the Government of the Republic of Kazakhstan of the state program “Energy Saving - 2020”<br>- availability of agreements on cooperation with organizations identified as bases of practice;<br>- development of advanced training forms for teaching staff and incentive measures in terms of ownership of information and communication technologies;<br>- creation of competitive educational programs based on the active participation of representatives of industrial enterprises in the educational process;<br>- the use of rating criteria for assessing the performance of teaching staff, improving the effectiveness of scientific and | - dynamics of changes in the external environment (socio-economic situation, demographic situation);<br>- changes in the regulatory documentation that governs the educational activities of universities;<br>- availability of legislative and regulatory requirements that limit the effectiveness of the implementation of plans. |

| | |
|---|---|
| methodological seminars and advanced training system;<br>- improving the quality and competitiveness of educational programs. | |

**Conclusion.** Measures to overcome the weaknesses in the field of the educational program, as well as ways to improve the effectiveness of the use of strengths, taking into account the favorable opportunities and threats from the external environment:

1. Adjustment of EP, focused on the competency model of the graduate.

2. Increasing the number of allocated educational grants for doctoral PhD in the specialty 6D071800 "Electric Power Engineering";

3. Increasing the level of educational and methodical literature in the state language in EP.

Specialized profile EP 5B071800 / 6M071800 – “Electric Power Engineering” contains the following self-assessment of compliance: according to the criteria, the EP has a strong position - 5, satisfactory - 11, supposes improvement - 1.

## 3. INFORMATION MANAGEMENT AND REPORTING

S.Seifullin Kazakh Agrotechnical University has a system for collecting and monitoring information on the educational programs of the undergraduate 5B071800 / 6M071800 "Powerengineering." Students have the opportunity to obtain the necessary information about the educational process at the university, including teaching and learning materials and administrative materials for students. All resources used to organize the learning process are sufficient. All key performance indicators of the educational program are monitored: the modular structuring of plans is carried out, the catalog of elective disciplines is regularly published, the proposed educational trajectories are developed, the composition of teaching staff is improved, the sufficiency and updating of the library and information support is monitored:

 profile of the student number ;

students' progress, their success and the share of expelled;

 student satisfaction with the educational program, its educational paths;

Satisfaction of faculty, staff working conditions, available resources, etc .;

 availability of student learning and support resources.

- The university has an automated information system “Platonus”, which allows to fully automate the processes of credit and distance learning systems and is aimed at improving the internal quality assurance system. The system has a centralized database, which reflects all the real events and processes of the university. For each student and employee, a so-called

personal account is provided (personal web-page), which allows the university staff to automate their main tasks, students see the necessary information, and distant students instantly get access to cases and knowledge control, communicate in real time with the teacher through the global Internet or the internal network of the university. Each student has the opportunity to use his personal virtual office:

For familiarization with the disciplines and the syllabus;

To register for elective disciplines and form their own individual curriculum;

 to view the transcript and timetable of studies;

To access the virtual audience.

The program has a privacy policy.

S.Seifullin Kazakh Agrotechnical University has an official website, freely accessible from the university's unified information network, as well as from the Internet and supporting the mission, goals and objectives of the university. All types of information are kept up-to-date on this site by constantly updating content in three languages (Russian / Kazakh / English).

Each structural unit systematically updates the supervised section and information, thanks to this, optimization of the educational process and the effectiveness of training within the educational program is achieved.

In general, the Platonus information system provides continuous monitoring of the assessment of all processes occurring at the university and is aimed at customer satisfaction and the fulfillment of the university's mission.

Systematic work on the operational information on the results of monitoring, on the course of corrective actions in the departments and at the university is open and transparent.

Students, faculty members, employees take part in the provision, analysis and monitoring of information activities, as well as in the planning of events held at the university. During monitoring, the implementation of the plan and the compliance of the results of the processes with the planned indicators (performance) are checked. A discussion of performance is conducted, an assessment is given, and, if necessary, corrective actions are developed to eliminate shortcomings and omissions in work. Quarterly, the progress of research and development is monitored.

All approved provisions, requirements, memos, document flow is made through the program ARTA. All electronic documents received by the user from the university administration, higher divisions can not be deleted during the term of these documents.

It must be remembered that the electronic method of transmitting documents does not guarantee 100% delivery of messages for various reasons. To prevent accidental loss of important documents, employees should use notification, duplication and copying of messages.

All key indicators of the functioning of the educational program are monitored: the state books, the modular structuring of plans is carried out, the catalog of elective disciplines is regularly published, the proposed educational trajectories are developed, the composition of teaching staff is improved, the sufficiency and renewal of library and information support is monitored.

At the end of the school year, at the meeting of the department with the participation of all stakeholders (faculty members, employers), a self-assessment of the study program is conducted, taking into account the changes made, the results achieved, the effectiveness and efficiency of the implementation of the study program are discussed (Annex 4.1-4.3).

At the end of the school year, to assess the degree of satisfaction of students with the quality of the educational services provided, the development of feedback with university students a survey is conducted. The survey results are processed and used in a generalized form to improve the conditions and quality of training at the university. Also, at the end of the semester, students and undergraduates have the opportunity to take a survey of the taught discipline at the AS “Platonus”, where the quality of the teaching of the discipline is assessed. The survey data are processed in the center of the career and business and are taken into account when calculating PPP surcharges. According to the survey, most of the students are fully satisfied with the content of the EP and teaching methods.

The University also has a virtual reception room, which includes a rector’s blog; pages in social networks. Anti-corruption activities are being held.

S.Seifullin KATU annually takes measures to improve the effectiveness and efficiency of activities based on a comprehensive analysis of educational and research activities. The system of assessing the effectiveness of the university includes indicators that describe the level of organization of the educational process (the number of students per teacher of a certain academic title, qualitative assessments, etc.).

S.Seifullin KATU also annually participates in ratings, such as the national rating of demand for universities of the Republic of Kazakhstan, where the quality of educational programs is assessed by levels and areas of training and the rating of the Republican rating agency Kazakhstan 2050 - National Rating for Innovation and Academic Excellence. So, in the period from 2016-2018. S.Seifullin KATU on educational programs of a bachelor degree 5B071800 / 6M071800 "Electric power industry" occupied 1-5 places (Appendix 5.1–5.11).

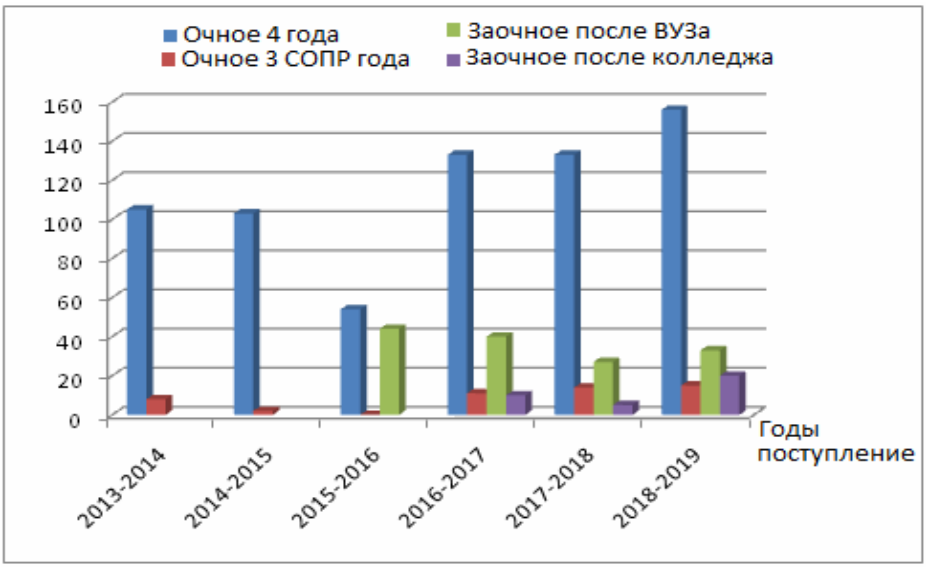
In the first year, in the first week, students are given a presentation not-sharing, in which students become acquainted with general information about the university - history, structure, and specialties in which students are trained. The data on the library with the description of the fund and the rules of using library services are presented.

At the presentation week, students are explained: general provisions on undergraduate education; principles of organization of the educational process; individual curriculum development procedures; student learning; rights and duties of students; rules of student behavior in the learning process.

The students are informed about the working curricula and the catalog of elective disciplines in the specialty 5B071800 “Power engineering”. The electronic version of these documents with the necessary comments is posted on the website of the university. Data on the admission of applicants are presented in Table 3 and the diagram below.

Table 3 - Data on the admission of applicants

| Years of entry | Full-time 4 year | Full-time year | Part time | Part time After college education |
|---|---|---|---|---|
| 2013-2014 | 105 | 8 | | |
| 2014-2015 | 103 | 2 | | |
| 2015-2016 | 54 | 0 | 44 | |
| 2016-2017 | 133 | 11 | 40 | 10 |
| 2017-2018 | 133 | 14 | 27 | 5 |
| 2018-2019 | 156 | 15 | 33 | 20 |




Analysis of information on the number of this specialty showed a fairly stable growth dynamics.

At this time, 399 students are studying in the specialty of bachelor 5B071800 “Power engineering”. The number of students in the specialty 5B071800 - "Power tngineering" in the context of courses without recruitment 2018/2019 is presented in Table 4.

Table 4 - The number of students in the specialty 5B071800 - “Power engineering” in the context of courses excluding recruiting for the year 2018/2019

| Items | 1 year | 2 year | 3 year | 4 year |
|---|---|---|---|---|
| In satate language | 83 | 80 | 28 | 51 |
| In Russian | 54 | 52 | 28 | 23 |
| Total | 137 | 132 | 56 | 74 |

Table 5 shows the number of undergraduates specialty 6M071800 "Power engineering".

Table 5 - The number of undergraduates of the specialty 6M071800 "Power engineering".

| Items | 1 year | 2 year |
|---|---|---|

| | | |
|---|---|---|
| Scientific and pedagogical direction | 19 | 7 |
| Profile direction | 21 | 21 |
| Total | 40 | 28 |

Available information on the placement of information on number formation is located on the website www.kazatu.kz.

In order to prevent possible problems with university students, preventive actions are being taken. According to the Quality Management System implemented at the university, the input information for the analysis of nonconformity and the development of preventive actions are the results of internal audits, evaluation of educational activities, regulatory and regulatory government and industry documents, and customer satisfaction assessments.

Under the terms of the credit system of education, the difference in the curricula of transferred and reconstructed students is eliminated during the academic period or in the summer semester on a fee basis. The allowable difference in the curriculum of students is determined by the Rules of transfer and recovery of students by type of educational organization.

For the prevention of problems, the following information is concentrated and used: data on attendance of classes (by disciplines); data on the current monthly and intermediate certification in the semester (by discipline); data of final certification (by results).

The university management and the dean's office together with the faculty of the departments provide various advice to students who have academic debts or social problems.

At meetings of the department and curatorial hours, reports on student attendance for each week are discussed; about current monthly progress; intermediate certification results. The progress of university students is tracked by the parents of students through online resources. For the student on the website www.kazatu.kz full information is given, each student can track his progress, track the scores on the day of receiving the mark through the AIS Platonus, based on which each student has his login and password.

Each week in the dean's office shall pass information about the passes. Every month, curators of supervised groups pass monthly analysis of visits to the dean's office. In the journal of certification, gaps are placed on the disciplines. If parents frequently pass, they are notified by telegram and called to the dean's office. Over the 30-hour excess of passes, the student is deducted.

At the department, communication with students' parents is carried out through curators, this mechanism is a bridge of communication with the student's parents and a lever for influencing students who have low academic performance. Based on the incoming information, discrepancies in the educational process are identified and their reasons are analyzed.

The registrar's office at the end of the school year counts the GPA of each student. The GPA and the mark of transfer from course to course are recorded in the gradebook and student transcript. Students who have a GPA below the prescribed level have the right to enroll for the summer semester and raise it to a level that allows them to proceed to the next course. According to the survey, about 80% of students are fully satisfied with the content of EP and teaching methods.

Students, faculty members, employees take part in the provision, analysis and monitoring of information activities, as well as in the planning of events held at the university.

The development of information systems and the optimization of internal procedures are one of the priorities of S. Seifullin Kazakh Agrotechnical University . In particular, thanks to the introduction of modern information technologies, since October 3, 2012, campus general network has been held at all student dormitories at a speed of 150 Mb / s, with each room connected to IDTV and IDPhone services. Now long-distance calls within Kazakhstan are free.

An educational portal is open for students, where all library resources are available. Fully automated processes for the receipt and delivery of literature. The entire library resource of the university is available in electronic format, equipment is installed in the reading rooms for quickly scanning materials of interest. Every year S. Seifullin KATU spends money on upgrading laboratory and educational equipment, as well as updating the library fund (Appendix 6.1-6.2).

In addition, with the first-year students the following events are held to familiarize and explain the regulations on the activities of the university:

1) The dean of the faculty and his deputies, as well as curators and advisors, acquaint students of the 1st course with the Charter and the Internal Regulations of the University, the main provisions of the organization of the educational process and the rules for using the library fund.

2) At meetings of student groups, advisers familiarize first-year students with the internal regulations, bring information about the organization of the educational process on the credit technology of training and examinations.

Information support meets the requirements of the educational program; The library contains all the necessary materials for training: educational, technical, reference and general literature, various periodicals. Systematic work is being done on prompt information.

Conditions have been created for the development of self-awareness, the formation of the ethical principles of the individual, his moral qualities and attitudes consistent with the norms and traditions of society, for the formation and development of a system of spiritual and moral knowledge and values; implementation of knowledge related to the norms of morality and professional ethics in educational and social activities. Measures are being taken aimed at family education, the decisive element of which is the transfer of socio-historical experience of emotional and rational relations between people with the priority of education of moral, spiritual and humanistic values. At the forefront is the orientation of students towards common human and national values, created on the basis of world and national culture, folk traditions and needs of the entire Kazakhstani society. («Туған тілім - тірлігімнің айғағы»; «Тәуелсіздік - ел тірегі»; «Иманы бардың ибасы бар»).

The system of measures in combination with the group work contributes to the formation of a communicative culture of students, which determines the principles of behavior, the system of values, ideals, norms and helps to establish contacts, develop them, harmonize, establish and, if necessary, adjust, i.e. organization of such communication, where each student could express their individuality.

Activities on physical education are aimed at the formation of a healthy lifestyle of a future specialist, the formation of personal qualities that provide the young man with mental stability and qualities necessary for effective professional activity. Such events are held as part of educational, outreach work, which gives an idea of the possibilities of the human body, the features of its functioning, the relationship of physical, psychological and spiritual human health, and by direct involvement of students in various sports.

A number of events organized involves the formation of professionally and personally significant key competences (special, profile, communicative, social, intellectual, informational, personal) and its other subtypes, students' familiarization with the traditions and values of the pedagogical community, adherence to professional ethics and corporate culture.

Tracking graduate career ladder. Communication with alumni is supported in various ways: through the alumni association, meetings, telephone, e-mail, using the capabilities of the social network “vkontakte.ru”, instagram. The quality of education in the educational programs of the undergraduate 5B071800 “Power Engineering” is confirmed by the high percentage (85%) of graduates' employment, the interest of applicants in this specialty, international relations with universities and research institutes. Employment of graduates of the specialty 5B071800 "Power Engineering" is presented in table 6.

Table 6 - Employment of graduates of the specialty 5B071800 "Power Engineering"

| year | Amount | | % |
|---|---|---|---|
| | graduates | employed | |
| 2013 | 58 | 48 | 83 |
| 2014 | 73 | 47 | 64 |
| 2015 | 106 | 98 | 92 |
| 2016 | 131 | 97 | 74 |
| 2017 | 95 | 67 | 71 |

The improvement of the EP is ensured by constant contact with employers. An alumni fair is held annually, for example, on April 11, 2018 in S.Seifullin KazATU held a job fair for graduates of the Faculty of Energy. The event was attended by representatives of more than 11 enterprises, heads of personnel management departments and heads of specialized services of enterprises of the energy profile: JSC Akmola REC, JSC Astana-Energy, JSC Astana-REC, Astana-Teplotranzit JSC, LLP Tavrida Electric Astana ", Spetselektra LLP, Tesla LLP, Astana Electrotechnical Plant LLP, Real Project LLP, EVBIKA LLP, Zhedel Kozet LLP, Concern Tsesna-Astyk LLP, LLP Agrofirm TNK ", etc.During the fair, employers made presentations of their enterprises, notified students about vacancies in the field of electricity and telecommunications. Students were able to communicate directly with employers, ask questions, sign up for an interview and submit their resumes to interested companies. In addition, employers were surveyed to improve the quality of graduate training. A platform was set up to adjust the feedback between production representatives and graduates, a discussion took place.

In S.Seifullin KATU organized information support for scientific research through access to Kazakhstan and foreign electronic resources. Each student or employee has the opportunity to use these electronic resources:

-Kazakhstan national electronic library (open access);

- Republican inter-university electronic library (licensed access);

-Әділет (open access);

- https://uchet.kz/ (license access);

- Russian Scientific Electronic Library (licensed access);

- "Publishing Lan" (licensed access);

- "University Library Online" (licensed access);

- Electronic books of the publishing house "Elsevier";

-Scopus (licensed access);

-SciVal (license access);

-ScienceDirect (license access);

-Web of Science (licensed access);

-Springer Link (licensed access);

-SAV Direct (licensed access), etc. Wide access to the largest databases, which contain more than 5,000 international publishers, in the field of basic, social sciences and humanities, engineering, medicine and art give the opportunity for students and faculty to keep up with the latest inventions and innovations in different fields of science. Access to these resources is made through the website of the university (http://kazatu.kz/ru/obrazovanie/nauchnaya-biblioteka/), where during registration remote access is possible. Every year at the university the list of licensed access to electronic resources is updated. Also scientific library S.Seifullin KATU conducts seminars on the use of an integrated modular platform SciVal, ScienceDirect database, etc.

SWOT - analysis of the standard "Information Management and Reporting" is given in table 7.

Table 7 - SWOT analysis according to the “Information Management and Reporting” standard

| Strong sides | Weak sides |
|---|---|
| - a good material and technical base for the management of information resources of the educational program;<br><br>- sufficient means of searching the library information in the disciplines of the educational program;<br><br>- availability of real opportunities for students | - insufficient development of remote forms of information resource management;<br><br>- poorly developed system of regular reporting, imperfection of the used ACS “Platonus”, where it is difficult to track |

| | |
|---|---|
| to participate in scientific, educational, educational programs through the information portal. | the assessment of the performance and effectiveness of the units and departments. |
| strong sides | weak sides |
| - availability of feedback between the leadership of the university, faculty members and students;<br>- availability of free Wi-Fi zone; | - the increasing amount of necessary information requires a combination of contact and distance learning of students |

**Conclusion.** Measures to overcome weaknesses in the field of information and reporting, as well as ways to improve the effectiveness of the use of strengths, taking into account the favorable opportunities and threats from the external environment:

1. Further development of the remote form of information resource management;

2. To use the model of shell data analysis in relation to the assessment of the performance of the department.

Specialized profile EP 5B071800 / 6M071800 - Electricity contains the following self-assessment of conformity: according to the criteria the OP has strong positions - 7, satisfactory - 9, suggests improvement - 1.4

## 4 DEVELOPMENT AND APPROVAL OF THE EDUCATIONAL PROGRAM

Educational, educational and methodical activities of the University is carried out on the basis of the credit technology of education. The credit technology of education at the University is implemented in accordance with the Rules for the organization of the educational process on credit technology of education (approved by order of the MES of the Republic of Kazakhstan dated April 20, 2011 No. 152).

Credit technology is carried out at the University on the basis of choice and self-planning by students, undergraduates, and doctoral students of an individual learning path. The organization of educational activities at the University is implemented through the planning of the educational process through the development of working curricula, academic calendars, work plans of the educational and methodological council, the development of working curricula (syllabuses), methodological materials, forms of intermediate certification and final certification. The content of educational programs at the University is implemented through standard curricula, work curricula, individual curricula, work curricula for disciplines, syllabuses, and professional practice programs.

The content of educational programs 5B071800 / 6M071800 “Power engineering” is determined by the list of disciplines in three cycles: general education disciplines , basic discipline, major disciplines). At the same time, additional types of training are provided: professional and work practice, physical education, final state certification. For the implementation of EP in accordance with the competence-based and student-centered approaches, a module-credit technology of training has been introduced.

EP designed in accordance with:- State compulsory standard of higher education, approved by order of the Government of the Republic of Kazakhstan No. 1080 dated August 23, 2012;- Rules of the organization of the educational process on the credit technology of education;- Model rules for the activities of organizations of higher and postgraduate education, approved by the Government of the Republic of KazakhstanNo. 499 dated May 17, 2013.

The organization of the educational process at the University is carried out on the basis of the academic calendar. The University presents the IEP, the Republican Unitary Enterprise, the development plan of the EP, the standard curricula of the disciplines of the obligatory component, which define the content, scope and recommended literature. On the basis of

typical curricula of disciplines of teaching staff of the department "Power engineering", educational-methodical complexes of disciplines of specialty 5B071800 / 6M071800 "Power engineering" were developed. Educational-methodical complexes contain regulatory documentation, model curricula for disciplines, working curricula, practical programs and guidelines.

Disciplines of educational programs are provided with teaching materials. Students have the opportunity to obtain the necessary information about the educational process at the university, including teaching and learning materials and administrative materials for students.

The educational program "Power engineering", implemented by the department "Power engineering" is consistent with the strategy, mission, vision and values of the university. The content and form of EP, the decisions made by the management of the department "Power supply" on the management of EP are consistent with the strategic documents of the university. The goals that are set by the Department of "Power engineering", coincide with the strategic goals of the university and do not contradict them.

The objectives of the educational program are determined on the basis of the analysis of the needs and expectations of interested parties. And is to meet the needs of students to obtain current qualifications and competencies, as well as take into account the focus on the implementation of the strategic objectives of the university.

The development of an educational program begins with the construction of a graduate model, which is formulated in such a way that it is possible to consistently determine the competences of a specialist at various educational levels. This model allows you to update the training programs with a change in the technical level of the industry, the development of learning tools and compression of information within each discipline.

The field of professional activity of graduates of the specialty “Power engineering” includes a set of technical means, methods and methods of human activity for the production, transmission, distribution, transformation, application of electric energy, energy flow management in the context of integration energy and economic relations and associations, development of regulatory documents and systems implementing these processes.

The priority areas of activity of the graduate of the specialty "Power engineering" are electric power enterprises and companies specializing in the operation of electric power equipment, power supply systems, main electricity transmission lines for the transmission and distribution of electric power.

The objects of professional activity of bachelors are:

- power stations and substations;

- electric power systems and networks;

- power supply systems of equipment and industries;

- electropower, electrical, electrophysical and technological installations of high voltage;

- power plants, power plants and complexes based on alternative and renewable energy sources;

- electrical machines, transformers, electromechanical complexes and systems, including their management and regulation;

- electrical and electronic devices, complexes and systems of electromechanical and electronic devices, automatic devices and control systems of energy flows;

- Means of accounting and control of electricity flows;

- intellectual computer systems and networks designed to control the equipment of the electric power complex, including remote control technologies.

The bachelor in the specialty 5B071800 "Power Engineering" is preparing for the following main types of professional activity:

- production and technology;

- design and technological;

- organizational and managerial.

At the same time, the professional-practical activity of a bachelor's graduate is primarily related to the introduction and operation of modern electric power equipment, new systems for technical diagnostics of elements of the electric power complex, technical measures and preparation of projects aimed at improving reliability and reducing accident rates in the electric power industry.

The bachelor in the specialty 5B071800 "Power engineering" should be able to solve the following professional tasks.

Production and technological activities:

- analysis and adaptation of high voltage electrical equipment of foreign manufacturers for work in domestic and foreign energy systems;

- determination of the optimal production and technological modes of operation of power generation facilities;

In the implementation of design and technological activities:

- collection and analysis of source data for the design and modernization of technological processes;

- design of technological processes of generation and transmission of electricity;

- Metrological examination of design documentation, development of a control system and selection of measuring instruments;

- carrying out feasibility studies of design and technological solutions.

In the implementation of organizational and management activities:

- organization of work of small groups of performers involved in the development of products, technological processes and their implementation;

- performance of work on standardization, technical preparation for certification of technical means, systems, processes, equipment and materials;

- preparation of documentation for the creation of a quality management system in the enterprise;

- carrying out organizational and planning calculations for the creation or reorganization of production sites;

- control over the observance of production and labor discipline, life safety requirements;

- participation in measures to ensure energy supply in international energy systems, designed and operated facilities;

- implementation of measures for the environmental safety of the enterprise.

In the implementation of service and operational activities:

- manage the operating modes of the equipment of electric power enterprises;

- the implementation of calibration measurement tools;

- implementation of diagnostics and drawing up plans for the repair of process equipment, high voltage of electric power enterprises;

- diagnostics, maintenance and repair of electric power equipment.

The Master in the specialty 6M071800 “Power Engineering” is preparing for the following main types of professional activity: industrial and technological; design and technological; organizational and managerial.

Additional professional activities are: research; service and operational.

The master in the specialty 6M071800 “Power engineering” should be able to solve the following professional tasks.

Production and technological activities:

- development of promising projects for electric power plants for various purposes;

- analysis and adaptation of high voltage electrical equipment of foreign manufacturers for work in domestic and foreign energy systems;

- development of new technological processes and equipment;

- determination of the optimal production and technological modes of operation of power generation facilities;

- examination of the proposed design solutions and new technological solutions;

- analysis and synthesis of measurement results and research, participation in working groups for the preparation and implementation of practical solutions in the field of activity.

In the implementation of design and technological activities:

- design of technological processes of generation and transmission of electricity;

- performance of technological calculations for the preparation and adjustment of equipment, the choice of operating modes and rationing of technological processes;

- analysis of the existing and development of new design process documentation;

- carrying out feasibility studies of design and technological solutions.

In the implementation of organizational and management activities:

- drawing up organizational and technical documentation (schedules, instructions, estimates, plans, applications for materials and equipment) and preparing reports on the established forms;

- analysis and evaluation of production and non-production costs to ensure the required product quality, analysis of the performance of production units;

- development of operational work plans of primary production units;

- preparation of documentation for the creation of a quality management system in the enterprise;

- carrying out organizational and planning calculations for the creation or reorganization of production sites;

- control over the observance of production and labor discipline, life safety requirements;

- participation in measures to ensure energy supply in international energy systems, designed and operated facilities;

- implementation of measures for the environmental safety of the enterprise.

In the implementation of research activities:

- collection and study of scientific and technical information, domestic and foreign experience in the field of production, transmission and distribution of electricity, operation of electric power equipment;

- mathematical modeling of processes and equipment using standard packages and computer-aided design tools and research;

- carrying out experiments according to specified methods, processing and analysis of results;

- carrying out technical measurements, drawing up descriptions of the research;

- preparation of data for the preparation of scientific reviews and publications;

- Participation in the preparation of scientific reports on the assignment and in the implementation of research and development results in the field of electric power industry.

In the implementation of service and operational activities:

- manage the operating modes of the equipment of electric power enterprises;

- the implementation of calibration measurement tools;

- implementation of diagnostics and drawing up plans for the repair of process equipment, high voltage of electric power enterprises;

- carrying out diagnostics, maintenance and maintenance of electrical power equipment.

The model of the graduate of the educational program of the specialty "Power engineering" was developed by a working group on the basis of the State Educational Standard of the specialty and was discussed with employers at the meeting of the department.

The university envisages an external EP experiment, which examines the quality assessment of the main characteristics of education presented in the program (volume, content, planned results), organizational and pedagogical conditions, forms of certification, curriculum, school schedule, curricula for school subjects, courses, disciplines ( modules), other components, as well as evaluation and teaching materials.

For external examinations of the EP, national agencies are involved that assess the quality of educational programs according to the levels and areas of training (Republican Rating Agency Kazakhstan 2050 - National rating on innovation and academic excellence. So in the period from 2016-2018 S. Seifullin KATU on educational programs of a bachelor degree 5B071800 / 6M071800 "Power engineering" occupied 1-5 places (Appendix 5.1-5.11).

Based on the results of external examinations, the management of the EP take measures to eliminate the deficiencies and improve the existing EPs.

The professional curriculum of higher education is aimed at training specialists with qualification in the 5B071800 "Power engineering" with a standard term of at least 4 years, taking into account the formation of students' ability for successful socialization, skills of self-presentation, self-analysis, self-assessment, self-development.

The field of professional activity of graduates of the specialty “Power engineering” includes a set of technical means, methods and methods of human activity for the production, transmission, distribution, transformation, application of electric energy, energy flow management in the context of integration energy and economic relations and associations, development of regulatory documents and systems implementing these processes.

The priority areas of activity of the graduate of the specialty "Power engineering" are electric power enterprises and companies specializing in the operation of electric power equipment, power supply systems, main electricity transmission lines for the transmission and distribution of electric power.

Graduates receive a diploma of higher education with the award of relevant academic degrees, as well as an academic transcript (transcript) in English, Kazakh and Russian, which contains a list of studied disciplines with grades and the number of credits earned or the amount of academic hours according to academic to the plan.

Graduates who have completed training in the specialty 6M071800 "Powerengineering" get the qualification: Master of Technical Sciences in the specialty 6M071800 "Power engineering". The term of study is 1.5 and 2 years, the form of study is full-time.

The field of professional activity is the field of science and technology, which includes the production, distribution and use of electrical energy. The objects of professional activity of graduates are power plants, electrical distribution networks of various voltages. The subjects of professional activity are: electrical distribution networks; power stations and substations; relay protection and automation of distribution networks. Typical tasks of professional activity are aimed at: maintenance and control over the quality of functioning, improvement, modernization and improvement of technical and economic indicators of power supply systems, power plants and substations; carrying out standard and certification tests of switching devices, protective devices, measuring devices, insulators; Metrological verification of the main measuring instruments of the parameters of electrical networks, systems and means of relay protection and automation, current and voltage transformers; participation in the development of projects for power supply systems, power stations and substations of various voltages, protection devices and automation of electrical networks and substations;

expert evaluation of technical proposals, technical specifications and other documents related to the design of power supply systems.

A graduate in this educational program may express themselves as: highly qualified specialist in the operation of electrical networks, power plants and substations; highly qualified specialist in the design of electrical networks, power plants and substations; highly qualified specialist in organizations that design cable lines, power transformers, high-voltage switching devices. The organization of its own private production and installation of electrical networks, high-voltage and low-voltage equipment, consulting and commercial activities in this area.

The educational program “Power engineering” in the specialty 6M071800 “Power engineering” provides for the study of the following main courses that form the necessary competencies: Policy and legislative framework for energy saving in the Republic of Kazakhstan, Sustainability of power systems, Special issues of relay protection and automation, Special issues of power supply.

The consideration of the interests of employers is laid down at the level of determining the goals of training specialists Employers annually formulate their needs for specialists and requirements for their preparation. Additional adjustment occurs during the organization of practices: the company issues a report on the need for changes, notes the strengths and weaknesses of the training.

The practice of students of the University is carried out in accordance with the Rules for the organization and conduct of professional practice and the rules for defining organizations as bases of practice approved by Order No. 107 of the Minister of Education and Science of the Republic of Kazakhstan dated January 29, 2016.

Connection with practice. Undergraduate.

In order to consolidate the theoretical knowledge gained by students at the university and the acquisition of practical skills in EP 5B071800 “Power engineering” according to the state standard, the student must master the following types of professional practice:

- The first educational practice is carried out with the purpose of obtaining by students of the primary understanding of computer technology and user skills.

- The 2nd educational practice is conducted at enterprises individually or in groups of 2-5 people; the purpose of the practice is to consolidate the theoretical and practical knowledge gained by students in the study of general professional disciplines;

- 3rd and 4th manufacturing practices; the purpose of the practice is to consolidate the theoretical and practical knowledge gained by students in the study of general professional and special disciplines, the study of job responsibilities of engineering and technical workers of enterprises, economic issues and issues of organization and production planning.

The practice is conducted at enterprises, in research organizations, where it is possible to study materials related to the topic of the graduation project or work; the goal of practical training is to prepare the student for solving organizational and technological problems in the workplace and for the implementation of final qualifying work - a graduation project or work.

The purpose of the production practice is to study the functional structure of the electric power enterprise, job descriptions of the maintenance personnel, technical characteristics of equipment, instrumentation and measurement methods for the main parameters of electrical equipment, regulatory and technical documentation on the design and operation of electrical equipment, technical solutions to meet the uninterrupted functioning of equipment issues improving the safety of the enterprise; mastering the techniques and rules for servicing certain types of equipment, the procedure for finding and repairing equipment damage.

Venue of practice: electric power enterprises, research and development organizations and industrial enterprises equipped with modern electrical equipment, measuring and computer equipment, where it is possible to study materials related to the topic of final qualifying work.

During the work experience, the student performs an individual task, the content of which is determined by special undergraduate training.

The management of all types of practice on 5B071800 "Power Engineering" is carried out by engineering and technical workers of industrial enterprises and teachers of the department.

Before starting the practice, the department organizes a conversation with students about the goals and objectives of the practice, explains the practice program and the nature of the report.

The main educational and methodical document defining the practice, which regulates the students' learning activity in practice, is the cross-cutting program of professional practice. The end-to-end program provides a unified integrated approach to the organization of professional practice: training, consistency, continuity and continuity of student learning.

The attestation on the basis of the practice is carried out on the basis of a written report drawn up in accordance with the established requirements, a review of the practice manager

from a higher educational institution and an enterprise, a practice diary and a public defense report. According to the results of certification, an assessment is given (excellent, good, satisfactory).

The base practices for 5B071800 "Power engineering" are given in table 8.

Table 8 - Practical bases for 5B071800 - “Power engineering”

| № | Name of the Organisation | Validity | Location |
|---|---|---|---|
| 1 | JSC «KEGOC» Akmola Branch | 05.03.2018-05.03.2023 | Astana |
| 2 | JSC “Astana-Regional Grid Company” | 18.01.2016-31.12.2019 | г. Астана |
| 3 | LPP «Kokshetau Energo» | 06.01.2016-31.12.2020 | Kokshetau |
| 4 | Branches of JSC «KEGOC» «АМЭС» | 06.01.2016-31.12.2016 | Atbasar |
| 5 | JSC Kazakhstan Electricity Grid Operating Company KEGOC | 23.01.2017-17.03.2017 | Karaganda |
| 6 | Astana-Energy JSC | 01.10.2013-31.12.2017 | Astana |
| 7 | Energy-Taraz LLP | 24.05.2013-31.12.2015 | Taraz |
| 8 | JSC "Locomotive service center" "Kokshetau locomotive service center" | 13.05.2013-31.12.2015 | Kokshetau |
| 9 | Soltustik Energo Ortaly LLP Tselina - Energo | 03.06.2013-31.12.2015 | North Kazakhstan region |
| 10 | JSC "Akmola distribution electricity network company" | 19.12.2013-31.12.2015 | Astana |
| 11 | "KEGOC" JSC "South MES" | 15.05.2014-31.12.2014 | Shymkent |
| 12 | LLP "Project EnergoStroy-NS" | 13.05.2013-31.12.2015 | Astana |

| | | | |
|---|---|---|---|
| 13 | JSC «Zhana Semey shpal zauyty» | 13.05.2013-31.12.2015 | Astana |
| 14 | TOO «Shieli-Energoservice» | 28.05.2013-31.12.2015 | Kyzylorda region |
| 15 | Aktobe Prilad LLP | 28.05.2013-31.12.2015 | Aktobe |

Cooperation with the above organizations and enterprises is carried out in the field of joint research, teacher training, attracting highly qualified teachers to give lectures to students in special disciplines, etc. (Appendix 7.1–7.32).

Connection with practice. Master's Degree

In order to consolidate the theoretical knowledge received by undergraduates at the university and the acquisition of practical skills in EP 6M071800 - “Electric Power Engineering” according to the state standard, the undergraduate must master the following types of professional practice:

1 Pedagogical practice.

The purpose of pedagogical practice is to consolidate and deepen knowledge of psychological and pedagogical, methodological and majors, as well as the formation of pedagogical skills, skills and competencies on the basis of theoretical knowledge. Pedagogical practice is aimed at combining general scientific, didactic, methodical, subject and psychological-pedagogical training.

Practice tasks

The program of pedagogical practice is aimed at the implementation of theoretical knowledge and the improvement of practical skills in working with a student group.

In the course of the pedagogical practice it is necessary to: get acquainted with the tasks, content and features of the educational and methodical and educational work in the S. Seifullin KATU ; to study the real state of the integral pedagogical process of the university; to study the age features of bachelor students; curricula, work programs on the subject of their specialty and other educational and methodical documentation of the department; practically master all forms of organization of studies at a higher educational institution, draw up lecture notes, plans for conducting seminars, practical and laboratory classes.

2 Research practice.

The aim of the research practice is to master the basic techniques of conducting research and the formation of a professional world view in this area, in accordance with the profile in the specialty "Power engineering".

Practice tasks

This type of practice solves the following tasks:

1) to form a comprehensive understanding of the specifics of the activities of a scientist in the field of "Power engineering";

2) to master the research methods that are most relevant to the profile of the specialty "Power engineering";

3) improve the skills and skills of independent research activities;

4) to improve the personality of the future researcher specializing in the field of Electric Power.

Based on the goals and objectives of research practice, it is necessary to master the skills:

- to formulate a scientific problematics in the field of electric power industry;
- to substantiate the chosen scientific direction, to adequately select the means and methods for solving the tasks in a scientific study;
- master the methods of organizing and conducting experimental and research work in the power industry;
- use the methods of research;
- to own the methods of processing the obtained empirical data and their interpretation;
- make informed conclusions on the results of the research;
- review and review scientific publications;
- master the methods of analysis and self-analysis, contributing to the development of the personality of the researcher;
- to conduct scientific discussions, without violating the laws of logic and the rules of reasoning;
- build relationships with colleagues and teachers.

At the end of the school year, at the meeting of the department with the participation of all stakeholders (PPP, employers), a self-assessment of the EP is carried out, taking into account the changes made, the results achieved, the effectiveness and efficiency of the EP implementation are discussed.

The organization of the educational process, in which the individual approach and the individual form of education are priorities, allows students to build a specialty "Power" the individual educational trajectory. The individual educational trajectory envisages a significant increase in the volume of independent work of the student, possession by the student of the freedom to choose disciplines when drafting his individual curriculum for a year, and the personal responsibility of the student for himself and for his trajectory.

From the moment of entering the educational program the student in the bachelor's and master's programs is attached to the adviser who directs his educational process, taking into account his wishes and academic achievements. The result of this work is the individual curriculum of the student, which is compiled for 1 year of study. For the various educational levels, the individual curricula of students are given .. Before the start of classes in the new academic year, the student can make adjustments to their individual curriculum.

In the EP of the department "Power engineering" a process of coordinating the curriculum of higher and postgraduate education with interested persons (employers).

Program contains information on the labor intensity in the form of credit units, the objectives of the content of the module, prerequisites, post requisites and the expected results of training results. Program allows students, undergraduates and doctoral candidates to flexibly approach the formation of their individual curricula taking into account their interests.

Dublin descriptors, which are descriptions of the level and amount of knowledge, skills, abilities and competencies acquired by students upon completion of the educational program at each level (level) of higher and postgraduate education. They are based on the results of training, formed competencies, as well as the total number of credit (credits) ECTS units.

Undergraduate. The standard and working curriculum of the specialty includes 3 sections:

 general education - 28 credits, 46 ECTS;

of these, a compulsory component is 21 credits, 35 ECTS;
optional component - 7 credits; 11 ECTS;

 basic disciplines - 69 credits, 111 ECTS;

Of these, a mandatory component - 20 credits, 32 ECTS;
optional component - 49 credits; 79 ECTS;

 profile disciplines - 32 credits, 49 ECTS;

of these, a compulsory component is 5 credits, 8 ECTS;
optional component - 27 credits; 41 ECTS;
Total for the obligatory component - 46 credits, 75ECTS;
By choice - 83 credits, 131 ECTS.
Master's Degree
The standard and working curriculum of the specialty includes 2 sections:

 basic disciplines –20 credits, 31 ECTS;

Of these, a mandatory component - 8 credits, 12 ECTS;
optional component - 12 credits, 19 ECTS;

 majoring disciplines - 22 credits, 33 ECTS;

of these, a mandatory component -2 credits, 3 ECTS;
optional component - 20 credits; 30 ECTS;
Total for the obligatory component - 10 credits, 15 ECTS;

Elective - 32 credits, 49 ECTS.

On the basis of the Rules for the organization of the educational process for the credit technology of education, an internal university regulatory framework was created (order of the Ministry of Education and Science of the Republic of Kazakhstan dated April 20, 2011 No. 152) and the main provisions of State obligatory standards of higher education (order of the Ministry of Education and Science of the Republic of Kazakhstan dated June 17, 2011 No. 261) Regulations on the organization of academic mobility in the framework of the Kazakhstan credit transfer system on the ECTS type ".

At the planning stage of learning outcomes, training methods and methods for assessing their achievement are determined. The content of the module is developed by a single teacher or group of teachers. If a module consists of several components, its content is compiled by a group of teachers leading these disciplines.

When forming working curricula for the purpose of optimizing the educational process, interdisciplinary and intercourse communications were taken into account. Such an approach to the formation of working curricula allows in the rapidly changing conditions to maximize the use of available information and library resources and teaching and laboratory facilities.

The disciplines of the elective component are specified in the individual curriculum of each student. Separate working curricula are developed for each form of study (full-time, part-time) and programs with different periods of study .

The bachelor and master models contain 3 blocks of required competences, which differ depending on the level of training. The first block contains the conceptual foundations of the specialty, the second - the professional competencies of the bachelor or master, the third - other competencies, including social and personal competences. The second block consists of 4 areas of activity: production and technology, design, installation and commissioning, and research. The difference between the bachelor's and master's levels is that the bachelor carries out these activities under the guidance of specialists who have master's or doctoral academic degrees, and the undergraduate is guided by them in carrying out independent professional activities.

The content of the educational program (EP) 5B071800 "Power Engineering" is determined by the list of disciplines in three cycles: general education disciplines , basic disciplines (BD), major disciplines. At the same time, additional types of training are provided: professional and work practices, physical education, final state certification.

For the implementation of educational programs 5B071800 / 6M071800 “Power Engineering”, educational-methodical complexes of specialty and disciplines are compiled, including a set of documents and educational materials.

All educational and methodical documentation is framed in a single form in accordance with the internal standards of the university and includes: educational and methodical complex of the specialty: map of educational and methodological security of specialty disciplines, methodical instructions for passing all kinds of professional practices, methodical instructions for the implementation of theses, guidelines for the final state certification of students; training program in the disciplines of the module (syllabus) for each discipline; materials for classroom work in each discipline: lecture notes, guidelines for the implementation of laboratory classes, guidelines for the implementation of the CDS, multimedia accompaniment of classroom studies; materials for the control of knowledge - written control tasks, written and electronic tests, examination tickets for each discipline; materials for work on practices: plans and programs for conducting practices, work programs of practice, forms of reporting documentation.

The university conducts continuous work on the expansion of international relations, formed direct contacts with many domestic and foreign leading universities and educational institutions of the CIS and the world. Concluded agreements on cooperation in the field of education and science with foreign institutions for 2013–2018 are given below (Appendix 8.1–8.10).

Creative cooperation agreements are listed in table 9.

Table 9 - Creative Cooperation Agreements

| № | Subject of the contract | No. and date of the contract | | Organization partner |
|---|---|---|---|---|
| 1 | Memorandum of Cooperation | 190 | 16.12.2013 | All-Russian Research Institute of Electrification of Agriculture |
| 2 | Cooperation agreement | 212 | 17.11.2014 | I. Razzakov Kyrgyz State Technical University. |
| 3 | Cooperation agreement | 111 | 21.05.2010-2015 | University of agriculture in Krakow |
| 4 | Memorandum of Cooperation | 185 | 30.03.2014 | Moscow Technical University of Communications and Informatics |
| 5 | International exchange | 194 | 16.12.2013 | University of Milan |

| | | | | |
|---|---|---|---|---|
| | agreement | | | |
| 6 | Agreement on cooperation | 208 | 20.10.2014 | LaSalle Polytechnic Institute |
| 7 | Cooperation agreement | 212 | 17.11.2014 | I. Razzakov Kyrgyz State Technical University |
| 8 | Agreement on cooperation | 222 | 17.03.2015 | Tomsk State University of Control Systems and Radioelectronics |
| 9 | Agreement on cooperation | 240 | 13.10.2015 | prof. M.A. Bonch-Bruevich St. Petersburg State University of Telecommunications. |
| 10 | Agreement on cooperation | 314 | 09.12.2016 | Berlin Technical University |
| 11 | Agreement on cooperation | 330 | 26.06.2017 | Astrakhan State Technical University |
| 12 | Agreement on cooperation | 228 | 27.03.2015 | Graduate School of Business Belefeld (Germany) |

The universities with which memorandums and cooperation agreements are currently signed are the leading educational institutions in their country, and also some of them are included in the TOP-500 according to the results of QS World University.

SWOT - analysis according to the standard "Development and approval of the educational program" is given in Table 10.

Table 10 - SWOT-analysis according to the standard "Development and approval of the educational program"

| Strong sides | Weak sides |
|---|---|
| - full provision of specialty disciplines with model programs, syllabuses;<br>- provision of computer equipment and Internet access;<br>- update the library fund;<br>- the presence of successful experience of international cooperation in educational | Insufficient provision of standard textbooks in the Kazakh language for individual disciplines;<br>- lack of joint educational programs with other universities. |

| and scientific activities; | |
|---|---|
| Strong sides | Weak sides |
| - the presence of the necessary republican and university regulations on the organization of the educational process;<br>- conditions have been created for raising the educational and intellectual level of students (library fund, various organizational measures, etc.);<br>- the interaction of the university with educational institutions of the republic, CIS countries and abroad; | - the consequences of the ongoing systemic crisis in all sectors of the economy, accompanied by extremely low levels of effective demand for highly qualified young personnel, innovative developments and products, high-quality additional education and advanced training |

**Conclusion.** Measures to overcome weaknesses in the field of educational programs, as well as ways to improve the effectiveness of the use of strengths, taking into account the favorable opportunities and threats from the external environment:

1. Development of Basic and Internet versions of textbooks and manuals for undergraduate and undergraduate students of EP “Electric Power Engineering” in the Kazakh language;

2. Search for universities - partners for the implementation of double-diploma education;

The most promising, in our opinion, are the following proposals for improving the activities of undergraduate and graduate programs:

• development and publication of electronic teaching materials for the disciplines of the magistracy;

• development and implementation of adaptation courses in the basic disciplines of the relevant direction, allowing to acquire in-depth knowledge of the training profile, which does not coincide with the education received at the first stage;

• involvement of scientists from institutions and organizations engaged in research and development in leadership.

Currently, these proposals are underway.

Specialized profile EP 5B071800 / 6M071800 - Electricity contains the following self-assessment of compliance: according to the criteria, the OP has a strong position - 4, satisfactory - 6, suggests improvement - 2.

# 5 CONSTANT MONITORING AND PERIODIC EVALUATION OF EDUCATIONAL PROGRAMS

The undergraduate and graduate educational programs are developed on the basis of the provisions of the Law of the Republic of Kazakhstan “On Education”, State Compulsory Educational Standards of the Republic of Kazakhstan, Model Rules for Educational Organizations Implementing Educational Programs of Higher Professional Education, State Standards of Specialties, and other regulatory documents of the Ministry of Education and Science RK.

In order to implement educational programs in the departments, educational and methodical complexes of specialties were created.

Changes to the developed educational programs are made as necessary in accordance with the requirements of legislative and regulatory documents of the Republic of Kazakhstan in the field of higher professional education, the modern needs of the development of society and the labor market.

In addition, new elective disciplines, reflecting the current state of the power industry, are periodically included. Compliance with the demands of consumers is ensured by involving representatives of electric power enterprises in the development of catalogs of elective disciplines.

The quality of the programs offered by the elective disciplines is ensured by a systematic examination conducted by employers with their further recommendation on the introduction into the educational process (Annex 4.1-4.3).

The quality of the programs offered by the elective disciplines is ensured by the systematic examination of educational and methodical complexes conducted according to the work plan of the department. Also, at least once a year, educational and methodical complexes of disciplines are examined by members of the educational and methodical council of the faculty.

Changes in the cycle of compulsory disciplines are determined by new regulatory documents, letters of the Ministry of Education and Science of the Republic of Kazakhstan. Changes in the curricula of elective disciplines are made through the procedure of updating or reapproval. Ensuring the relevance of educational programs is carried out through the involvement of practical workers in the development of educational programs.

The analysis of the compliance of the name and content of disciplines with current areas of science development is carried out by reviewing educational programs and catalogs of elective disciplines by employers. In addition, any interested person can make their proposals on the website of the university, where these documents are exhibited.

The developed educational program is adjusted in accordance with changes in the labor market. The need for the abolition of lost relevance or the introduction of new elective disciplines is considered at the meeting of the educational and methodical section of the department. All changes are reflected in the catalogs of elective disciplines, which annually pass the approval procedure at the methodological council.

The formation of an individual learning path is carried out by recording students on elective disciplines, choosing teachers and curriculum disciplines. Based on the IEP and competency model of the graduate, the annual working curricula of the specialty are formed taking into account the requirements of employers.

To control the quality of teaching and the level of knowledge of students, the department and university control is carried out regularly. The departments monitor the quality of the teaching staff classes (the journal of mutual visits, the schedule for holding open classes, the minutes of meetings as departments).

In order to improve the quality and control the progress of students of the teaching staff of the specialty, additional individual lessons and consultations are conducted. All of the above classes are conducted according to the approved schedule. A record of the classes conducted is recorded in the journals of the department, monitored by the head of the department.

At the meeting, the department discusses the results of the results of midterm controls and exam sessions.

Students, faculty and employers are monitored regularly for satisfaction with the quality of the educational process.

Curricula are formed in several stages. At the first stage, the number of compulsory and elective disciplines is determined, the number of credits for the entire period of study at the university, with the allocation of additional types of student learning activities and their distribution by courses and semesters. At the second stage, a draft curriculum for the academic year is drawn up. The number of credits and the number of disciplines chosen by the student is determined. At the same stage, the Academic calendar for the upcoming school year is compiled. On the basis of the draft work curriculum, an individual student curriculum is

formed. Individual curricula of students are approved by the dean of the faculty, working curricula of specialties at a meeting of the University Academic Council.

The questions of final control of basic and core disciplines cover all the topics studied. The goals and objectives of the basic and core disciplines of the EP fully cover the whole range of professional competencies.

To control the quality of teaching and the level of knowledge of students, the department and university control is carried out regularly. The departments monitor the quality of the teaching staff classes (the journal of mutual visits, the schedule for holding open classes, the minutes of meetings as departments).

At the department meetings, the results of the mid-term controls and exam sessions are discussed.

In EP of "Electric Power Industry" constantly introduced innovative methods of teaching such as: the use of interactive whiteboards, virtual laboratories, the use of digital educational resources. Teachers of the department in the classroom widely used a variety of traditional, innovative technologies. Classes are conducted using projectors, as well as using digital educational resources (Annex 9.1–9.2).

The quality of the programs offered by the elective disciplines is ensured by the systematic examination of educational and methodical complexes conducted according to the work plan of the department. Also, at least once a year, educational and methodical complexes of disciplines are examined by members of the educational and methodical council of the faculty.

Organization and control over the quality of the educational process in the specialty is carried out: the department for monitoring the quality of education, the department for organizing and monitoring the educational process, deans, departments.

The quality control of students 'training is carried out by means of carrying out control sections of students' knowledge: according to the approved schedules, 2 current controls are conducted in one semester, 1 intrauniversity controls (input cut) and intermediate attestation (session) are carried out. The materials of the current, intra-university, intermediate control are discussed and approved at the department. Various forms and types of control sections of students' knowledge are applied, incl. using modern computer technology.

Students, faculty and employers are monitored regularly for satisfaction with the quality of the educational process.

Two undoubted advantages of a modular credit system of education can be distinguished: firstly, it provides an opportunity to expand the number of students by providing an opportunity to study in the magistracy graduates of undergraduate other specialties. Secondly, the introduction of a modular credit learning system creates the prerequisites for better learning of students through parallel study of related disciplines, since related, adjacent, mutually complementary disciplines constitute one module and are studied at the same time.

In order to take into account the interests of employers in the development of educational programs in the formation of catalogs of elective disciplines, potential employers and heads of practical bases are actively involved. Such participation in the specialty is provided in the following forms (Annex 4.1-4.3):

1) conducting round tables with heads of enterprises;

2) inviting potential employers to educational seminars and department meetings where the working curricula of specialties, the catalog of elective disciplines are discussed.

3) review and examination of catalogs of elective disciplines and curricula of elective disciplines.

4) conducting a survey of potential employers, heads of practice bases and practitioners for the formation of professional competencies of the graduate specialty.

In order to make the EP more focused on clients, the university has a feedback and information system. Innovative proposals from stakeholders to improve the activities of the EP can be received both through communicative means of communication (on the official blog www.kazatu.kz, e-mail communication, interviews with potential employers), and in person (during reception hours of visitors; presentations at the Academic and The Board of Trustees of the university, the survey of employers during the alumni fair).

Requirements for the results of the development of EP are presented in the form of competencies. Competences of the graduate of the specialty "Power" include:

- general cultural competence;

- professional competences, including general professional, common for all profiles, areas of training;

- profile professional competencies that complement the list, as well as characterizing the specifics of professional competencies, the profile of training bachelors of 5B071800 “Power industry”;

- systemic and professional competencies representing integrated competencies formed on the basis of general cultural and professional competencies.

At the end of the school year, at the meeting of the department with the participation of all stakeholders (PPP, employers), a self-assessment of the EP is carried out, taking into account the changes made, the results achieved, the effectiveness and efficiency of the EP implementation are discussed.

At the end of the school year, the head of the department prepares a report on the work of the department, which helps management to track the implementation of the development plan for the EP. In case of detection by the leadership of the inconsistency of the implemented EP to the implementation plan, the development plan is re-examined at the department meeting with the participation of all interested parties, and corrections are made to it, corrective and preventive actions are developed.

The list of interested persons includes faculty members, employers, students. At the end of the school year, at the meeting of the department with the participation of all stakeholders (PPP, employers), a self-assessment of the EP is carried out, taking into account the changes made, the results achieved, the effectiveness and efficiency of the EP implementation are discussed.

Students can be informed via the Platonus system, where students can follow the necessary changes.

The consideration of the interests of employers is laid down at the level of determining the goals of training specialists. Employers annually formulate their needs for specialists and requirements for their preparation. Additional adjustment occurs during the organization of practices: the company issues a report on the need for changes, notes the strengths and weaknesses of the training. For example, a change is made to the catalog of elective disciplines in the specialty “Power industry”, a change in the content of the discipline, with the expansion or contraction of certain chapters.

The analysis of the compliance of the name and content of disciplines with current areas of science development is carried out by reviewing educational programs and catalogs of elective disciplines by employers. In addition, any interested person can make their proposals on the website of the university, where these documents are exhibited.

SWOT-analysis according to the standard “Continuous monitoring and periodic evaluation of educational programs” is given in Table 11.

Table 11 - SWOT - analysis according to the standard “Continuous monitoring and periodic evaluation of educational programs”

| Strong points | Weak points |
|---|---|
| - availability of developed university strategic plans<br>- Compliance with the strategic plans of the mission, goals and objectives of the university<br>- the presence of the developed concept of the university development | - large student population<br>- high average age of teaching staff |
| Strong points | Weak points |
| - potential demand for graduates of the specialty "Power";<br>- favorable competitive environment in the market of educational services;<br>- recognition of the university by the public as a training center;<br>- availability of agreements on cooperation with organizations identified as bases of practice. | - changes in the regulatory documentation that governs the educational activities of universities;<br>- availability of legislative and regulatory requirements that limit the effectiveness of the implementation of plans; |

**Results.** 1) Strengthen the work to ensure the relevance of the taught discipline.

2) It is necessary to strengthen work on the issues of compliance of the name and content of disciplines with current areas of science development and the requirements of employers.

Specialized profile OP 5V071800 / 6M071800 - Electricity contains the following self-assessment of compliance: according to the criteria, the OP has strong positions - 2, satisfactory - 8, suggests improvement - 1.

## 6. STUDENT-CENTERED TRAINING, TEACHING AND EVALUATION OF SUCCESS

The modular educational program and the disciplines presented in it are divided into modules, which are divided into the following types: general mandatory modules, mandatory modules in the specialty, modules of choice for the specialty, and modules that go beyond the qualifications. The modular educational program allows the student to choose an individual educational trajectory of learning. This scheme of formation of the educational program gives the student the freedom to choose the disciplines listed in the catalog of elective disciplines and the basic curriculum, the personal participation of each student in the formation of their individual curriculum, and the involvement of academic consultants who assist students in choosing the educational path.

The management of EP provides equal opportunities for students regardless of the language of instruction in the formation of an individual educational trajectory, as a result of the implementation of which the necessary competences must be obtained. The individual educational trajectory (IET) consists of the obligatory, variable, correctional and organizational parts. The compulsory part includes the core modules for the study, which correspond to the typical curriculum for the specialty 5B071800 / 6M071800 “Power engineering”. The variable part includes a set of modules and their constituent parts, which the student chooses to study, depending on his areas of study. Mandatory and variable part aimed at determining the content of training.

Under EP Bachelor 5V071800 "Power" there are two learning paths: "Power" and "Electrical Networks". There are two training trajectories in the field of postgraduate education 6M071800 “Electric Power Engineering”: “Electrotechnical complexes and systems” and “Power stations and substations”.

The correctional part provides for assisting students in choosing disciplines for the variable part of the modules and variable modules with regard to their individual characteristics, as well as the definition of the organizational part. The organizational part includes the following system components: forms, methods, technologies, means, control of the study of the selected content. Table 12 presents the organizational components of IET learning.

Table 12 - Organizational components of the IET learning

| Asynchronous elements | Ensuring asynchronous learning | Asynchronous Means |
|---|---|---|
| Independent work of students<br>Selection of disciplines of the variable component<br>Select an additional training profile | Dean's office | Working curriculum; Timetable of classes;<br>Schedule consultations teachers IWST; curriculum control |
| | Advisors, Tutors | Student's Individual Curriculum |
| | Teachers | EMCD, schedule of completion and delivery of tasks, list of references |
| | Students | Library, electronic publications, Internet, syllabus |

The content component specifies the options for the formation of individual educational technology. As part of the educational program, it is possible to implement academic mobility and additional education. Table 13 shows the informative component of the IET training.

Table 13 - The Content Component of UTI Training

| VOI options | Ensuring asynchronous learning | Asynchronous Means |
|---|---|---|
| Individual competency set | Advisors, students | Student's Individual Curriculum |
| | Chairs | Variety of disciplines |
| | Deans | Working curriculum |
| Concretization of the profile of training (WGR, KR, research work) | Advisors, students | Student's Individual Curriculum |
| | Chairs | Approximate subjects of the Kyrgyz Republic, topics of WGR, approximate topics of NIRS |
| Individual level of development of disciplines | Advisors, students, | Regulations on the ball-rating evaluation system, schedule of assignments, research |

| | | |
|---|---|---|
| (high, medium, low) | teachers | work |
| Professional adaptation to professional activities during practice | Advisors, students, chairs, deans | Practice programs, agreements with enterprises on practice bases, formation of individual tasks for practice |
| Expanded set of professional competencies (choice of additional training profile) | Advisors, students | Student's Individual Curriculum |
| | Deans | The main educational program of additional training profile, professional advanced training courses. |

EP is implemented by credit technology, which allows you to successfully implement the principles of the Bologna process. Based on the choice and self-planning by students of the sequence of study of disciplines, they independently form their individual curriculum (IUP) for each academic year, choosing the disciplines included in the QED. Formation of IEP is preceded by registration (pre-registration) of students of all forms of training for academic disciplines.

Students are provided with free access to the Internet in the classroom to work with virtual laboratory and practical work, as well as outside school hours in classrooms and dormitories.

The university has all the possibilities of using distance learning technologies. Through e-mail there is an unbreakable telecommunication link with students. The university website contains the developed electronic versions of the UMCD in the Kazakh and Russian languages for the subjects taught.

The graduating departments conduct postgraduate support for graduates (verification stage), monitor post-graduate activities, find effective ways to interact with graduates and employers in the area of improving the quality of training. In accordance with the work plan for employment at the preparatory stage, the requirements for specialists in the field of electric power industry are determined. To this end, a resume is prepared for each graduate with all the necessary data and achievements of the graduate in educational, scientific and social activities. Data is provided to potential employers in advance at the alumni fair. In addition, graduates are distributed among enterprises, organizations with which the university has concluded

cooperation agreements, enterprises, managers and specialists of which are members of the university's board of trustees.

Individual training planning is formed for the academic year by the students themselves (for the academic year) under the guidance of the adviser. Adviser appointed by order of the Chairman of the Board. The department is obliged to provide students with full information in advance about the number of elective disciplines and a brief description of them through advisors, through the Catalog of disciplines, and also to present presentations of disciplines in the AIS Platonus system before the start of the registration period

Before the start of the theoretical period of study in AIS Platonus, a full Educational and Methodological complex of disciplines (EMCD) should be placed, according to the working curricula.

When forming individual plans, the learner is offered a list of mandatory disciplines and optional disciplines in accordance with the work plan of specialties and the Catalogue of elective disciplines. The choice of disciplines should be made with due regard for the logical sequence of studying the disciplines. A student cannot be registered for discipline unless he mastered the prerequisites of the next semester in the previous semester.

The choice of basic disciplines is carried out taking into account the professional orientation of the student, but the learner's IEP may also include the disciplines declared in the block of basic disciplines in other specialties.

Formed IUP in 3 copies is signed by students and submitted to the adviser for approval. In the absence of comments, the Advisor signs the IEP, coordinates it at the Registrar's Office and submits it for approval to the dean of the faculty. After approval, one copy remains with the learner, the second copy is transmitted by the adviser to the Registrar's Office for use in the appraisal process, and the third is kept by the advisor and serves as the basis for monitoring the implementation of the student’s curriculum. The deadline for submission of IUP to the Registrar's Office is the 3rd week of the 1st semester for all undergraduate courses, the 2nd week for the 1st master courses, the doctorate.

The student has the right to change the IEP in the framework of the working curriculum specialty before the beginning of the semester of theoretical studies in the period of registration specified in the Academic calendar.

Students, graduate students, doctoral students studying in foreign universities on the basis of international educational exchange programs or partner programs of S.Seifullin

KATU JSC may be credited with credits earned during the period of study abroad in the disciplines corresponding to the approved curriculum of the specialty university.

In the conditions of the credit system of training, the student is provided with a large amount of independent work in the form of homework, case analysis, coursework and other research projects. All types of independent work are necessarily described in the syllabus and EMCD with indication of specific tasks, evaluation criteria and schedule for completion of tasks.

Formation of the schedule of classes is carried out on the basis of registration of students in the discipline. The student must register for a certain number of credits provided for by the working curriculum of the specialty. Online registration of a student to study academic disciplines is carried out in the AIS Platonus system with methodological and advisory assistance from advisors. Log in to the AIS "Platonus" http://platonus.kazatu.kz/ authorized.

The university has a blog of the rector, where each student can write a wish, ask questions, and there is a time for admission of students.

The Chairman of the Board and the First Deputy Chairman of the Board hold a reception on personal and business matters from 15:00 to 17:00. on the following days by appointment: Chairman of the Board - Wednesday; The first deputy chairman of the board is the same. Deputy Chairman of the Board for Strategic Planning, Science and International Relations, Deputy Chairman of the Board for Educational Work, Deputy Chairman of the Board for Financial Issues and Infrastructure Development hold daily receptions on all issues from 15:00 to 17:00. Students receive a reception every Friday. from 15:00 to 18:00 by appointment.

Also, the head of the department and the dean of the faculty take part in the consideration of students' complaints and in finding a solution to the issue daily.

After each exam session in order to study the relationship of students

The teachers, through the eyes of students, are surveyed to teachers, their professionalism and personal qualities.

To assess the effectiveness of each stage of the learning process in the study program, the generally accepted rating system used in credit technology is used. The assessment process is structured so that it is transparent, adequate and independent of the human factor.

The knowledge assessment mechanism is reflected on the website of the university and is publicly available information. Assessment of students' knowledge is made on a four-point scale. When conducting the final exam, a positive score is entered in the exam sheet for the academic discipline of the AIS "Platonus". Grade F "unsatisfactory" is affixed only in the

examination sheet. The total assessment of the student in the discipline is formed by summing up the points for the boundary and final control of the knowledge gained during the semester. In this case, the mandatory requirement of completion of the intermediate certification of the student in the discipline is a positive assessment on the final exam.

The maximum assessment of the current academic performance in the semester is 60% of the final assessment of knowledge in the discipline, and the maximum assessment of the exam is 40% of the final assessment of knowledge of the discipline. The results of the exam, according to the examination sheet, are entered by the teacher in the AIS "Platonus" on the day of the exam.

Applications for appeal on the basis of written, oral exam or computer testing are accepted within one day following the announcement of the results, according to the personal statement of the student with the signature of the dean of the faculty addressed to the Director of DAI, where it is necessary to indicate the essence of the subject matter . The appeal is carried out orally by the subject appeal committee of the department. The results of the appeal, drawn up by the Protocol, are signed by the members of the appeal commission and transferred to the AOEP. A staff member of the Public Health Association grants access to the examiner to enter the results of the appeal.

Retake a positive assessment of the final control with the aim of raising it is allowed during the summer semester, but it does not affect the scholarship.

Students who score a set GPA score level are transferred to the next course by order of the university rector. The required GPA score for the transfer from course to course is set by the University Academic Council at the beginning of the school year and amounts to the following courses: 1-2 course - 1.9; 2-3 course -2.0; 3-4 course -2,1. A student who does not score a GPA score is enrolled for the summer semester to increase the GPA score for certain disciplines on a fee basis or remains on a repeated course of study on a fee basis. The student, left on a second course, has the right to study according to the previously adopted individual curriculum or form a new individual curriculum, developed in the prescribed manner.

A student who has scored the required GPA score and transferred to the next course of study, in the presence of academic debt, re-examines the disciplines for which he has debts only on a fee basis.

Students - holders of educational grants, left to re-training, lose their educational grants and continue their further education only on a fee basis.

Students - holders of educational grants who have scored a translated GPA score and transferred to the next course with academic debts, are not deprived of an educational grant. In this case, they must re-examine the disciplines for which they have debts on a fee basis and pass an exam on them. The cost of one loan in the context of specialties determines the financial department.

To check the educational achievements of students, the following types and forms of monitoring students' knowledge are provided: routine monitoring; landmark control; final control. Ongoing control is a systematic check of students 'academic achievements carried out by a teacher in current classes in accordance with the discipline's syllabus. Boundary control is the control carried out on the 8th and 15th weeks of theoretical training, with the inclusion of the results of current control and putting the results of the boundary controls in the statements in the AIS "Platonus". The number of boundary controls is determined by the work curriculum and is indicated in the discipline syllabus. The form of the current and boundary controls, depending on the specifics of the discipline, is set by the teacher. Current and boundary controls can be conducted in the form of colloquiums, computer or matrix test surveys, written tests, assessing the participation of students in disputes, round tables, business games, solving situational problems, etc.

Detailed information on the forms of the current and midterm control is included in the syllabus of the discipline and communicated to students in the first 2 weeks of the semester.

The results of the midterm controls are entered by the teacher in the list of midterm controls in the AIS "Platonus" no later than the following Monday attestation week. Changes in the results of the midterm control in order to improve them are not allowed.

The final control is the verification of the educational achievements of students, conducted after the completion of the discipline during the examination session (interim certification).

The duration of exam sessions and the number of examinations is determined in accordance with the approved working curriculum of the specialty and the academic calendar.

Responsibility for organizing and conducting the examination rests with the deans of the faculties and the office of the registrar. Students must pass all exams in strict accordance with the work and individual curriculum for the approved curriculum disciplines. Part-time students are admitted to the examination session if they do not have academic debts for the previous course. Examination sessions on correspondence courses, their periods and number in the academic year are determined by the approved curriculum specialties.

Examinations in Saken Seifullin Kazakh Agrotechnical Universityare held in written, oral and test form on a computer or on paper.

The point-rating system used in the implementation of the EP assessment of students' academic performance and quality provides:

a) improving the quality of education due to the intensification of the educational process, enhancing the work of the faculty to update and improve the content and teaching methods;

b) strengthening of regular control during the development of the educational program by students;

c) increase the motivation of students to master educational programs;

d) strengthening the discipline of students, improving the indicators of students attending classes;

e) activation of independent and individual work of students.

The final certification completes the training of a specialist and shows his willingness to solve theoretical and practical problems in his specialty.

The purpose of the graduation project: the acquisition of skills of independent work; mastering the research methodology; generalization and logical presentation of the material, the ability to analyze the work, etc.

Final certification of students in S.Seifullin KATU Rules of credit technology of education, is carried out in accordance with the forms defined by the QMS for specialties of higher and postgraduate education and is carried out in terms stipulated by the academic calendar and approved by the working curricula of specialties.

- for carrying out final certification of students a state attestation commission (SAC) is created for each specialty for all forms of education;

- Deans of faculties until October 15 of this year, represent to the department of the educational process of the Department of Academic Issues candidates for the chairmen of the SJC, from among professors, associate professors, scientists, teachers, experienced production specialists and teachers with practical experience corresponding to the profile of graduates and not working in this university;

- admission to the final certification of students is issued by the order of the dean of the faculty on the list of students no later than two weeks before the start of the final certification and submitted to the SJC. The review of the graduation project (work) is carried out only by

external specialists from third-party organizations whose qualification corresponds to the profile of the protected work;

- reviewers of graduation works and the topics of theses for full-time students are approved by order of the head of the university by a general list on the proposal of the head of the graduating department indicating the place of work and position no later than October 15 of the current year;

- the university independently develops and approves the work programs of the state exam in the field of study, the technology of its conduct on the basis of the curricula of the disciplines included in this comprehensive exam;

- defense of the thesis / dissertation (master's thesis), held at the open meeting of the State Attestation Committee;

- doctoral dissertation at a meeting of the dissertation council in accordance with the established requirements;

- before submitting the documents to the dissertation council of the doctoral candidate, the dissertation is being discussed at an extended meeting of the department and / or laboratory;

- decisions on the assessment of protection, as well as on conferring qualifications, awarding an academic degree and issuing a state diploma (without distinction, with honors) are made by the SJC at a closed meeting by open vote by a simple majority of votes of the commission members who participated in the meeting;

- Re-passing the state exam and the defense of the thesis with the aim of increasing the positive assessment is not allowed;

- students who have passed the final certification, and who have confirmed the mastery of the relevant professional curriculum of higher education, by the decision of the GAK qualification and (or) academic degree "bachelor" in the relevant specialty and issued a state diploma with the application;

- a student who passed the exam with grades A, A- “excellent” in at least 75 percent of all disciplines of the curriculum, and in the other disciplines - in grades B-, B, B + “good”, and passed all state exams and defended the thesis (project) with grades A, A- “excellent”; a diploma with honors is issued (without taking into account the assessment of military training).

- upon receipt of the “F” grade “unsatisfactory”, re-taking state examinations and / or re-defense of the thesis in this period of final certification is not allowed;

- re-final certification of the student is carried out in the next period of final certification only in those forms for which the rating "unsatisfactory" was obtained in the previous final certification. At the same time, the list of disciplines submitted for state exams for people who did not pass these exams is determined by the approved work curriculum valid in the year of graduation of the theoretical course. Students who have received an “unsatisfactory” grade during the final certification are expelled from the university by order of the head of the university with the issuance of a Certificate of the established sample;

- a student expelled from the university according to the results of final certification, no later than two weeks before the start of the final certification of the next academic year, writes a statement addressed to the head of the educational organization about permission of admission to those forms for which “F” was rated “unsatisfactory”. The student is allowed to retake or to protect the thesis / final work only on a fee basis.

Teaching staff together with foreign partners carry out a large educational, methodological and scientific work to improve the learning process using interactive teaching methods, with the introduction of international distributed learning, forecasting learning activities of students. In this case, attracted students, undergraduates and doctoral students.

The working curricula of the specialty 5B071800 “Power engineering” and the programs of individual disciplines are drawn up and implemented in such a way that, based on mastering these competencies, graduates can understand and evaluate the current state and prospects of social and technical development of society.

The faculty of the department passes annually advanced training at the republican and international levels. Advanced training of teaching staff takes place according to the main activities of the department, which are conducting research and teaching disciplines in the field of electric power. So in 2013 the number of teaching staff who underwent advanced training was 11 people; in 2014 - 5 people; in 2015 - 3 people; in 2016 - 7 people; in 2017 - 12 people; in 2018 - 2 people.

SWOT - analysis of the standard "Student-cantered learning, teaching and assessment of progress" is given in Table 14.

**Table 14. SWOT - analysis of the standard "Student-cantered learning, teaching and assessment of progress"**

| Strong points | Weak points |
|---|---|
| | |

| | |
|---|---|
| - provision of a base for conducting practices on the basis of agreements with enterprises<br>- consistency of educational programs with potential employers;<br>availability of developed curricula for the educational program, the content of which corresponds to current trends, considering the requirements of the labour market;<br>- ensuring the growth of high-quality educational services through the introduction of modern information technologies;<br>-effective and objective system for evaluating students 'academic achievements in the educational program<br>-continuous training and scientific and methodological potential of faculty;<br>- Sufficient provision of disciplines of the educational program with educational and methodical complexes;<br><br>-continuous research work of faculty and students of the department, their participation in scientific conferences;<br>-the availability of computers and laboratories, library stock;<br>- determination of the mechanisms for each graduate to master the EP of learning outcomes and ensure the completeness of their formation. | - low availability of OP textbooks in the state language<br>- Platonus is an automated information system for universities of the Republic of Kazakhstan, is constantly in debug mode, which forces duplicate student administration subsystem, supports the learning process. |
| O (opportunity) – благоприятные возможности | T (treat) – угрозы |

| | |
|---|---|
| - credit system of education introduced<br>- Kazakhstan entered the Bologna process, the quality of education is close to the European standard<br>- use in the educational process a variety of application software<br>- use in the educational process of the electronic library of electronic books<br>a sufficient level of integration of the industrial potential of the region with the educational and scientific potential of the educational program for the conclusion of contracts for practical training;<br>a high rate of demand for graduates of the educational program in the labor market;<br>recognition of the department and the university by the public as a center for training specialists. | -the unadaptedness of first-year students to self-study<br>- the instability of incomes of the population, industrial enterprises, small and medium-sized businesses that act as customers of personnel; |

**Conclusions. Improvement areas:**

1. To continue the work on the introduction of multilingualism, expand communication with higher educational institutions of foreign countries, increase the number of taught subjects in English, which will facilitate the participation of students in international programs and academic mobility.

2. To activate the work of external and internal academic mobility.

3. Ensure the filling of students' personal accounts in the automated system “Platonus”.

4. To activate the work of the departments in organizing the participation of students in R & D, to stimulate the publication activity of students.

5. To conduct classes at the branches of the Department "Electrical" on the bases of employers.

Specialized profile OP 5V071800 / 6M071800 - Electricity contains the following self-assessment of compliance: according to the criteria, the OP has strong positions - 3, satisfactory - 6, suggests improvement - 1.

## 7 LEARNERS

The development of education on the specialty "Electric Power" is aimed at training highly qualified specialists, which involves the formation of highly educated creative individuals. Educational programs are constantly refined and improved in accordance with the pace of development of the electric power industry.

Over the last 5 years of educational activity, the educational programs on the specialty were revised, which is connected with the introduction of new state compulsory education standards of the Republic of Kazakhstan.

Formation of students' number for the 1st course at S.Seifullin KazATU is carried out in accordance with the Model Rules for admission to studies in educational organizations that implement professional curricula for higher education.

In the course of its activities the selection committee of S.Seifullin KazATU was guided by regulatory documents, reference materials, guidance letters of the Department of Higher and Postgraduate Education, National Testing Center on issues of admission to higher educational institutions.

A number of students is formed when ones is admitted to the number of students who are most prepared for studying at a higher educational institution, who deliberately chose a specialty, scored the necessary number of points based on the results of the UNT - unified national testing of secondary school graduates, CTA - comprehensive testing of secondary education graduates on the basis of state order (grant) and on a commercial basis, as well as specialists with diplomas for a second higher education on the basis of an interview.

The movement of the number occurs as a result of deduction, transfer, restoration of students, leaving a second year of study and the provision of academic leave. Deductions, transfers, restoration of students, leaving for a second year of study and granting of academic leave is carried out on the basis of the Methodological Instruction on the order of expulsion, transfer, restoration and provision of academic leave of S. Seifullin KATU students.

Information on the transfer from course to course, from other universities, the procedure for transferring loans mastered in other universities, about expel from an educational institution are learnt in the dean's office or office registrar.

After the formation of a number , in the academic calendar for the first courses, the first week is devoted to training and informing newly admitted students the rules of credit

technology. This includes general questions of the organization of the educational process, students' planning of the Individual curriculum, acquaintance of students with a reference guidebook, Catalog of elective disciplines of the specialty, forms of educational documentation, etc. For the implementation of the university's credit system, special academic services have been created to assist students in selection and implementation of their educational trajectories and assistance in the development of academic disciplines. Special academic services are the office of the registrar and the service of advisors who assist students in choosing an educational trajectory.

Guided by the approved individual curricula and official information of the students' number , the Department of Academic Affairs forms academic flows, training groups and subgroups. The subsequent progress of the students is monitored by the dean's office, the department: (control of attendance, progress, payment of contracting services, results of examinations, analysis of the adaptation period of students).

Department of Academic Affairs; guided by the approved individual curricula and official information on the student population, it forms academic flows, training groups and subgroups. The subsequent progress of the students is monitored by the dean's office, the department: (control of attendance, progress, payment of contracting services, results of examinations, analysis of the adaptation period of students).

Academic consultations are carried out by advisors who assist in choosing the trajectory of learning (forming an individual plan) and mastering the educational program during the period of study.

A student who has fully complied with the requirements of the curriculum of this course and has collected the appropriate number of credits has an established passing grade (GPA), he is transferred to the next course by order of the university rector. Information about passes is given every week to the dean's office. Every month, curators of supervised groups monthly give analysis of students' visits to the dean's office. In the journal of certification, gaps are placed on the disciplines. If student frequently passes, parents are notified by telegram and called to the dean's office. Over the 30-hours excess of passes, the student is deducted.

The management of EP regularly demonstrates its accessibility for teaching staff of departments, students and parents. The department successfully operates the official reception hours on the personal issues of students' parents; this mechanism is a bridge of communication with the student's parents and a lever for influencing students with low academic performance.

Based on the incoming information, discrepancies in the educational process are identified and their reasons are analyzed.

The registrar's office counts the GPA of each student at the end of the school year. The GPA and the mark of transfer from course to course are recorded in the gradebook and student transcript. Students who have a GPA below the prescribed level have the right to enroll for the summer semester and raise it to a level that allows them to proceed to the next course. Analysis of information on the number of this specialty showed a fairly stable growth dynamics.

At this time, 399 students are studying in the specialty of bachelor 5B071800 “Power engineering”. The number of students of the specialty 5B071800 "Power industry" in the context of courses and the number of students of the specialty 6M071800 "Power industry" without taking into account the set for the 2018/2019 school year are presented in Table 15 and 16, respectively.

Table 15 - The number of students in the specialty 5B071800 "Electric power"

| | 1 course | 2 course | 3 course | 4 course |
|---|---|---|---|---|
| State language | 83 | 80 | 28 | 51 |
| Russian | 54 | 52 | 28 | 23 |
| Total | 137 | 132 | 56 | 74 |

Table 16 - The number of students in the specialty 6M071800 " Electric power "

| | 1 курс | 2 курс |
|---|---|---|
| Scientific and pedagogical direction | - | 7 |
| Profile direction | - | 21 |
| Total | - | 28 |

Available information on number formation is located on the website www.kazatu.kz.

Stydent’s individual plan is formed according to the established form on the basis of the standard curriculum of the specialty and the catalog of elective discipline. During one academic period with a semester organization of his student must complete at least 18-23 undergraduate program loans.

According to the master's program, the student has to master 59 credits. During one academic period with a semester organization student must master at least 16 credits.

Academic certification of students is carried out on a point-rating system of knowledge assessment. The students' knowledge meters are presented at the department in various forms: test questions, tickets, tests (open, closed, combined, essay, etc.) tasks for laboratory, coursework and other works. As a tool for measuring students' knowledge, the grading scale is used, which is based on a point-rating letter system adopted in the credit system of education. The systematic control of students 'academic achievements during the academic period, including the stages of current, mid-term and final control, ensures the objectivity and transparency of students' knowledge assessment.

The undergraduate education program includes theoretical training, additional types of training (physical education, military training), various types of professional practices (training, industrial, undergraduate), intermediate and final attestation.

The Master's educational program includes theoretical training, teaching and research practices, research work, intermediate and final certification.

In accordance with the State Program for the Development of Education of the Republic of Kazakhstan for 2011-2020, the promotion of academic mobility of students, as one of the principles of the Bologna Declaration, is considered as the most important target indicator.

The purpose of academic mobility: integration into the international educational space, the use of world educational resources.

Mechanisms for the implementation of academic mobility:

- The organization of the summer semester for the development of modules of educational programs with the invitation of teachers and students from other universities;

- Studying by students the individual disciplines or modules of educational programs in other educational organizations of the republic, as well as abroad;

- Students departure to abroad for practical training in their educational programs;

- The development of additional educational programs and courses through distance technologies.

Students are systematically informed about the possibilities of academic mobility and the involvement of students in this process by:

- University site;

- Regularly updated stands on the credit system at the faculties;

- Reference guides for students;

- Information kiosks in the university buildings.

S.Seifullin KATU with the universities of the Republic of Kazakhstan concluded 12 agreements on mutually beneficial cooperation in the provision of educational services in the framework of academic mobility.

A prerequisite for participation in academic mobility programs for students is high academic performance. The main criteria for the competitive selection of applicants are: the completion of one academic period for grades "B-", "B", "B +", "A-", "A" (GPA not lower than 2.67) and fluency in a foreign language in the case of departure to a foreign university.

1. On the basis of the Rules for the organization of the educational process for the credit technology of education, an internal university regulatory framework was created (order of the Ministry of Education and Science of the Republic of Kazakhstan dated April 20, 2011 No. 152) and the main provisions of the State compulsory standards of higher education (order of the Ministry of Education and Science of the Republic of Kazakhstan dated June 17, 2011 No. 261) approved the "Regulations on the organization of academic mobility in the framework of the Kazakhstan system of credit transfer by type ECTS".

2. The faculty appointed coordinator of academic mobility of students. Training workshops have been held for the coordinators and consultations are held regularly.

3. An information package has been developed for students traveling outside our university and for students coming to us on academic mobility (Appendix 10).

An important factor is the development of academic mobility, attracting the best foreign and domestic teachers, conducting joint research.

Work on attracting foreign scientists to the university is carried out constantly in the process of cooperation with foreign partner universities. In accordance with the preliminary agreement and the need of the university, a plan for inviting foreign scientists is being drawn up. The main criteria and prerequisites for inviting a foreign scientist are: the authority of a scientist in the international academic community, which is confirmed by work experience, international experience, publications in scientific journals, recommendations of scientists in the relevant field of activity; the compliance of the goals of a foreign specialist stay with the strategic goals and objectives, priority directions of development of S. Seifullin KATU.

In the 2018 academic year Sarsenbina Alma Kenzhebekovna ("Power supply" 08-718-16-18 Kazakh group) participated in the external academic mobility and went to the Czech Republic.

For internal academic mobility in the 2018-2019, 4 students left for Akhmet Baitursynov Kostanay State University: Raspekov Alikhan Kairatovich; Turlybekov Maksat Talgatovich;

Amanzhol Alisher Madiyaruly; Turataev Temirlan Turartaiuly; and 2 students in Karaganda State Technical University: Temirlan Gabdullin Kairzhanovich; Baikanov Dauren Tursynhanovich.

Also, on the internal academic mobility in the 2018-2019 academic year arrived Romankulova Tashsholpan Bauyrzhankyzy; Orynbasarova Aktoty Kanatkyzy; Akylbek Anar Baurzhankyzy; Askarkyzy Aқmaral and 2 students from Karaganda State Technical University: B.N.Usynbaev and I.T.Togbaev

Internal academic mobility (outgoing) for the 2017-2018 year academic is presented in Table 17.

Table 17 - Internal academic mobility (outgoing) for the 2017-2018 academic year

| # | Full name | Specialty | Directed | Period |
|---|---|---|---|---|
| 1 | Turartayev Temirlan Turartaiuly | 5B071800 “Electric power” 08-718-15-04 | D. Serikbayev East Kazakhstan State Technical University | 5 semester 2017-2018 academic year |
| 2 | Gabdullin Temirlan Kairzhanovich | 5B071800 “Electric power” 08-718-15-04 | S.Toraigyrov Pavlodar State University | 5 semester 2017-2018 academic year |
| 3 | Baikanov Dauren Tursynkhanovich | 5B071800 “Electric power” 08-718-15-04 | S.Toraigyrov Pavlodar State University | 5 semester 2017-2018 academic year |
| 4 | Taurbayeva Meruert Zhumashevna | 05B071800 "Electric power " 08-718-16-19 | Karaganda State Technical University | 3 semester 2017-2018 academic year |
| 5 | Anapiyanov Kuat Tulegenuly | 05B071800 «Electric-power» | S.Toraigyrov Pavlodar State University | 6 semester 2017-2018 academic year |
| 6 | Raspekov Alikhan | 05B071800 «Electric-power» | Ahmet Baitursynov Kostanay State University | 6 semester 2017-2018 academic year |

Internal academic mobility (incoming) 2017-2018 academic years is presented in Table 18.

Table 18 - Internal academic mobility (incoming) 2017-2018 academic years

| # | Full Name | Specialty | Has arrived | Period |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| 1 | Kaliyeva Ayaulym Erlanovna | 05B071800 «Electric-power» | S.Seifullin Kazakh Agrotechnical University From Karaganda State Technical University | 5 semester 2017-2018 academic year |
| 2 | Akylbek Anar | 05B071800 «Electric-power» | S.Seifullin Kazakh Agrotechnical University From Ahmet Baitursynov Kostanay State University | 5 semester 2017-2018 academic year |
| 3 | Askarkyzy Akmaral | 05B071800 «Electric-power» | S.Seifullin Kazakh Agrotechnical University From Ahmet Baitursynov Kostanay State University | 6 semester 2017-2018 academic year |

The following students A.A. Ezhevsky - Irkutsk State Agrarian University: V.S. Kopylov and M.S. Saifulin – 3rd courses participated in the external academic mobility of the 2017-2018 academic years.

Gabdullin Temirlan Kairzhanovich from S. Toraigyrov Pavlodar State University took part in internal academic mobility (outgoing) 2016-2017 academic years.

Berkinbai N. B. – Korkyt Ata Kyzylorda State University in the specialty 5B071800 «Electric-power " participated in internal academic mobility (incoming) 2015-2016 academic years.

An important factor in the professional activity of graduates is the monitoring of employment. The department constantly monitors the work of graduates, invites to meet with freshmen, and helps in further professional growth through training in the magistracy. Graduates of the specialty electric power industry have a good feedback from employers.

As a result of the successfully completed educational program, the undergraduate graduate is awarded an academic degree “Bachelor of Engineering and Technology in the 5B071800 specialty“Electric Power Engineering”, a graduate of the magistracy -“Master of Technical Sciences in the specialty 6M071800 “Electric Power Engineering” in accordance with the State Classifier of Higher and Postgraduate Education of the Republic of Kazakhstan.

For the purpose of employment of students, the process of distribution of graduates is carried out through the organization and holding of a fair of graduates - graduate students from all faculties.

The Employment of faculty graduates is entered into the database for the submission of certificates from their place of work. After that, the original diploma supplement is issued. The

analysis showed that the entire number , about 85% get a job in the specialty. For example, in the structural units of the Ministry of Agriculture - 5%, in the power structures of the Ministry of Internal Affairs., National Security Committee of RK., Presidential Security Service - 10%, the rest in Republican, regional, city, district, rural energy companies and enterprises. An annual fair of graduates is held with the invitation of employers; from 20 to 30% of graduates conclude an employment contract based on their results.

The university has a center for the development of entrepreneurship, career and business. The main tasks of the center are: assistance in organizing educational, industrial, pedagogical, pre-diploma, research practices for students; popularization and promotion of the idea of entrepreneurship, the formation of a positive image of an entrepreneur in the youth environment; promoting youth development; the introduction of educational modules on innovation and entrepreneurship into educational programs, the transformation of classical education into an entrepreneurial education; increasing the competitiveness of graduates in the labor market; development of interaction of S.Seifullin KATU JSC with legal entities and individuals engaged in venture financing of innovative projects, scientific organizations, universities, government bodies and local governments, the media on the support and development of youth entrepreneurship; increasing the competitiveness of JSC "KATU S.Seifullin" and the growth of investment income; organization of work on the formation of contractual relations with institutions of various legal forms of ownership in order to expand the scope of social partnership; assisting graduates in building career growth plans and promoting them; - improving the competitiveness and mobility of graduates of Saken Seifullin Kazakh Agrotechnical Universityon the labor market; increasing the business activity of students and graduates; assisting graduates in building career growth plans and promoting them.

The Center for the Development of Entrepreneurship, Career and Business also collects, analyzes and summarizes information on the results of work on graduates' employment. The responsible teacher for employment in the department sends information (lists of representatives, employers, organizations, enterprises, joint stock companies, LLP, firms) responsible for the faculty. The dean and the department responsible to prepare information about the specialties and qualifications produced. They also provide a list of graduates in the current academic year with personal information (place of residence, addresses, etc.) on electronic and paper media for sending letters on employment to akims of regions, cities and districts. At the department, graduate students are introduced about incoming applications for

vacancies from employers. To assist in finding employment and carrying out further work on the organization and holding of a graduate fair, the responsible faculty collects a summary of graduates in the context of specialties in 3 copies (on electronic and paper media) and places on the site.

Every year in April in S.Seifullin KazATU holds job fairs for graduates of the Energy Faculty. Representatives of the following enterprises take part in the events: Akmola REC JSC, Astana-Energy JSC, Astana-REC JSC, Astana-Teplotranzit JSC, Tavrida Electric Astana LLP, Spetselektra LLP, Tesla LLP ", LLP" Astana Electrotechnical Plant ", LLP" Real Project ", LLP" EVBIKA ", LLP" Zhedel Kozet ", LLP" Concern "Tsesna-Astyk", etc. Employers make presentations of their enterprises, present vacancies in the electricity sector to graduates.

For the self-realization of the personality of the students all the conditions are created. The material base and qualification of faculty allow you to fully meet the needs of students in obtaining high-quality knowledge of their chosen specialty.

The organization of civil-patriotic, legal and multicultural education activities is aimed at shaping civic position and patriotic consciousness, legal and political culture. The development of national identity, culture of interethnic relations, social and religious tolerance, based on humanism, love and respect for the language, history and customs of the Kazakh people, preservation and development of its best traditions, study and development of cultures of other peoples of Kazakhstan (Annex 11.1-11.4) .

Table 19 shows the significant achievements of students in the specialty "Electric - Power" in the field of civil-patriotic, legal and multicultural education.

Table 19 - Significant achievements of students in the specialty "Electric - Power" in the field of civil-patriotic, legal and multicultural education.

| year | participant's full name | Name of the university (venue) | Event type | Ranked |
|---|---|---|---|---|
| 2014 | Aitkazy Kazbek | S.Seifullin KazATU | Interfaculty, parliamentary tournament on the topic: Education policy today, the future. | 2nd place II –degree Diploma |

| | | | | |
|---|---|---|---|---|
| 2017 | Zholmukhamedov Amirzhan<br>Tulegenova Aizhan<br>Mareev Daniel<br>Mubarak Birzhan<br>Sablina Anastasiya<br>Imambayev Zhanibek<br>Nikitin Alexander | S.Seifullin KazATU | Intellectual game "In the maze of history." Organizers: Department of History of Kazakhstan, Faculty of Music and members of the Miras Club | 1st place<br>I –degree Diploma |
| 2018 | Kiyakbayeva Aliya | S.Seifullin KazATU | Decade days of Kazakhstan history in honor of the 135th anniversary of a prominent figure of the Alash movement - Khalel Dosmukhamedov, doctor, teacher | 1st place for the best work (essay) on the topic: "The great leader Alash"<br>I degree Diploma |

Debate club and musical circle function to develop students' creative abilities, artistic amateur and artistic words. Students of the specialty participated in the amateur art show, the genre of "Kurkem soz", where they were awarded with diplomas. There are sports sections in volleyball, basketball, football, table tennis, and national types of games (Appendix 12.1–12.10).

Table 20 shows the significant achievements of students in the specialty "Electic Power" in sports.

Table 20 - Significant achievements of students in the specialty "Electric Power"

| year | participant's full name | Organizer (venue) | Event type | Ranked |
|---|---|---|---|---|
| 2013 | Fazylkhan Balgabay | Semey, WAKO-KAZAK-HSTAN kickboxing federation | Tournament in memory of Kazakhstan kickboxing coaches | 3rd place Diploma |

| | | | | |
|---|---|---|---|---|
| 2013 | Abet Kurman | S.Seifullin KazATU | Traditional Olympics among first-year students in honor of the Independence Day of Kazakhstan. Basketball. | 3rd place III –degree Diploma |
| 2014 | Kapparov Bereke | S.Seifullin KazATU | Traditional sports contest among students of 1st course in honor of Kazakhstan Independence. Mini football. | 1st place I –degree Diploma |
| 2014 | Yeraly Yesaly | S.Seifullin KazATU | Traditional Olympics among first-year students in honor of the Independence Day of Kazakhstan. Mini football. | 1st place I –degree Diploma |
| 2014 | Yeraly Yesaly | S.Seifullin KazATU | Traditional Olympics among first-year students in honor of the Independence Day of Kazakhstan. Volleyball. | 1st place I –degree Diploma |
| 2015 | Ibragimov Adlan | Ministry of Culture and Sports of RK | IV Paralympic Games of RK. 100 m breaststroke, sport SB9. | 1st place Diploma I – degree |
| 2016 | Zhanibek Imambaev | S.Seifullin KazATU | Traditional Olympics among 1st year students in honor of the 25th anniversary of Independence of the Republic of Kazakhstan. Table tennis. | 3rd place Diploma I I I –degrees |
| 2016 | Fazylkhan Balgabay | Almaty, Ministry of Culture and Sports of the Republic of Kazakhstan | Tournament in memory of Kazakhstan kickboxing coaches | 1st place Diploma I – degree |
| 2016 | Fazylkhan Balgabay | Anapa, Russia WAKO-KAZAKH-STAN kickboxing | For His participation in World Cup Diamond | 3rd Place Diploma |

| | | | | |
|---|---|---|---|---|
| 2017 | Fazylkhan Balgabay | Chelyabinsk | XX cup of Governor in Chelyabinsk region in kickboxing (Urals Championship) | 2nd Place Diploma II –degree |
| 2017 | Fazylkhan Balgabay | Atyrau, Ministry of Culture and Sports of the Republic of Kazakhstan | Kazakhstan Championship in kickboxing among men and women | 2nd Place Diploma II –degree |
| 2018 | Kiekbaeva Aliya | Astana | International Championship of Choreography | Grand Prix in the nomination "Folk Dance" |
| 2018 | Alcuat Samgat | Ministry of Culture and Sports | Republican tournament "Spirit of Victory" in Kekushinkai karate | 3rd Place Diploma III-degree |

The university has the Alumni Association, which provides sponsorship assistance to low-income students and provides employment assistance.

All conditions for self-actualization of students are created on specialty. The material base and qualification of faculty allow you to fully meet the needs of students in obtaining high-quality knowledge of their chosen specialty.

In 2013, 2016 the students of the department participated in the Republican subject Olympiad in the discipline of the compulsory component “Power Engineering” on the specialty “Electric Power Engineering”, held at the Almaty Institute of Energy and Communications, as part of a team (2013 - Baltymov S., Kusainov D., Sarbasov N.; 2016 - Abdrakhmanov S., Aubakirov B., Egenov G.,) took the 1st team place.

On 5-7April 2017 on the basis of S.Seifullin Kazakh Agrotechnical University “VIII Republican subject student Olympiad of the Ministry of Education and Science of the Republic of Kazakhstan” passed in the specialty "Electric power industry ". 11 teams from all

over Kazakhstan took part in the competition, but the team of S. Seifullin KATU did not win prizes.

The most important part of the research work of the department is the research work of students. The research work of students is carried out in accordance with the annual and long-term plans of the Academic Council of S. Seifullin KATU, research and development work, the Council of young scientists, faculty and department.

Students work on intramural competition is hold annually. Works are performed in Russian and state languages, in research and abstract character.

The University has developed a Regulation to support gifted students.

The program of support for gifted students is an integral part of training qualified specialists who are able to solve individually and collectively creative, professional, scientific, technical and social tasks applied in practical work to achieve scientific and technological progress, the ability to quickly navigate in economic situations.

The task of the university team is to create favorable conditions at the university, that provide each student the realization of their intellectual abilities through participation in research activities (Appendix 13.1–13.17).

Table 21 shows the significant achievements of students in Olympiads on the specialty "Electric Power".

Table 21 - Significant Achievements of Students in Olympiads on specialty “Electric Power”.

| year | participant’s full name | Organizer (venue) | Event type | Ranked |
|---|---|---|---|---|
| 2013 | Baltymov Salamat Kusainov Dastan Sarbasov Nurbolat | Almaty University of Energy and Communications | Republican student subject Olympiad on the specialty "Electric Power" | 1st place I degree diploma |
| 2014 | Aitkazy Kazbek | S.Seifullin KazATU | Inter-faculty tournament on the topic: Education policy today, the future. | 2nd place II degree diploma |
| 2014 | Rakhymbek Zhanbolat | Cup of Kazakhstan on business case | First round of the championship on business | Sertificate |

| | | | | |
|---|---|---|---|---|
| | | decision Changellenge Cup Kazakhstan | case | |
| 2014 | Aitkazy Kazbek | S.Seifullin KazATU | International scientific-theoretical conference "Seifullin readings -10" dedicated to the 120th anniversary of S.Seifullin | Letter of gratitude from the university rector for active participation in the conference |
| 2015 | Alseiyit Alibi | Party "Nur Otan" Youth Committee "Zhas Otan" | III Extraordinary congress - Youth Committee "Zhas Otan" | Letter of gratitude |
| 2016 | Abdrakhmanov Shalkar Aubakirov Beksultan Egenov Galymzhan | Almaty University of Energy and Communications | Republican student subject Olympiad on the specialty "Electric Power" | 1st place - место I degree diploma |
| 2016 | Alseiyit Alibi | The First President Library -leader of Kazakhstan nation | Seminar-training on the theme: "Ideas that change the world", the course on the theme: "5 institutional reforms of the President" | Sertificate |
| 2017 | Mareyev Daniel | S.Seifullin KazATU | Olympiad on the discipline "Mathematics" | 2nd place |
| 2017 | Matasova Anna | Ministry of Agriculture of the RK, S.Seifullin KazATU | Republican competition on research works of students of higher educational institutions of the Republic | 3rd place III degree diploma |

| | | | | |
|---|---|---|---|---|
| | | | of Kazakhstan | |
| 2017 | Murashko Nataliya | Ministry of Agriculture of the RK, S.Seifullin KazATU | Republican competition on research works of students of higher educational institutions of the Republic of Kazakhstan | 3rd place III degree diploma |
| 2017 | Bashim Dauren | Ekaterinburg "Ural Exhibitions" | IV International Scientific and Practical Conference | Diploma of the participant |
| 2017 | Miras Baymoldin | S.Seifullin KazATU | International Eurasian Conference on Future Energy. Sibcon 2017. | Certificate |
| 2018 | Aitkazy Kazbek Anetov Adlet Baymukhanova Tolkyn | Almaty University of Energy and Communications | Republican student subject Olympiad on the specialty "Electric Power" | 3rd place III degree diploma |
| 2018 | Kiyekbaeva Aliya | Astana | International Championship on Choreography | Grand Prix in the nomination "Folk Dance" |
| 2018 | Amangeldy Amina | S.Seifullin KazATU | Olympiad in the discipline "Russian language" | 2nd place II degree diploma |
| 2018 | Shakharilayeva Sevda | S.Seifullin KazATU | Olympiad on the discipline "Mathematics" | 2nd place II degree diploma |
| 2018 | Kiyekbaeva Aliya | S.Seifullin KazATU | Decade days of Kazakhstan history in honor of the 135th anniversary of a prominent figure of the Alash movement - Khalel | 1st place I degree diploma |

| | | | | |
|---|---|---|---|---|
| | | | Dosmukhamedov, doctor, teacher | |
| 2018 | Amankeldi Amina | S.Seifullin KazATU | Research group "Young Researcher". | Thank-you letter for active participation |

Students who take an active part in all areas of the university are encouraged. They show a high level of training in certain subject areas, special advances in research, creative, intellectual activity and exemplary behavior. Promotion is a means of recognizing a student's merit by the student and teaching staff, as well as by the university administration. The promotion is aimed at increasing students' motivation to study and research activities and their future profession.

SWOT analysis on the standard "Students" are given in Table 22.

Table 22 - SWOT Analysis Table on the standard "Students"

| Strengths | Weak sides |
|---|---|
| - the presence of internal regulatory documents defining and regulating the main policies in the educational process;<br>- carrying out a deliberate policy to form a number of students;<br>- the annual increase in admission of applicants for 1 course;<br>- introduction of information and technical support on educational activities;<br>- the development of electronic textbooks;<br>- the presence of the university educational portal;<br>- availability of educational, methodical, material and financial base;<br>- the presence of demand for graduates of the specialty "Electric Power";<br>- the presence of support program for gifted students at the university;<br>- the possibility of obtaining a preferential loan under the State program of preferential loans;<br>- the sports base corresponding to modern requirements;<br>- faculty of social professions - to develop creative opportunities; | - not full provision of places in the hostel;<br>- No possibility on professional certification of students in the field of specialization in the learning process.<br>- weak academic mobility of students and teachers' staff |

| | |
|---|---|
| - the concept of educational work has been developed;<br>- The presence of the university newspaper "Maman";<br>- Annual participation in the Republican subject Olympiad in the specialty;<br>- The possibility of obtaining additional scholarships "Tayburyk" for excellent students. | |
| Strengths | Weak sides |
| - the development of practical skills of students that meet the real needs of employers;<br>- inspiring for international accreditation of the educational program;<br>- demand for higher education;<br>- Strengthening the role of the University Board of Trustees in organizing the training of students, attracting leading enterprises and organizations of Astana to conduct professional practice for students and assist in the employment of graduates;<br>- expanding the infrastructure of the university. | - low educational level of school graduates;<br>-the desire of school graduates to participate in integration processes and a large selection of educational programs offered by foreign higher education institutions;<br>- increased competition in the market of educational services from universities in related specialties. |

**Conclusion.** Improvement areas:

1. The educational program should more actively involve students in the development of educational programs.

2. To activate the work of the Alumni Association of the University.

3. To activate work on passing students the professional certification.

Specialized profile of educational program 5V071800 / 6M071800 - Electricity contains the following self-assessment of compliance: according to the criteria, the educational program has a strong position - 6, satisfactory - 5, suggests improvement - 1.

# 8 FACULTY

The faculty is the main resource for securing the mission of the university. In this regard, great attention is paid to the selection and training of personnel.

The staff of the specialty "Electric power industry" is staffed in accordance with the legislation of the Republic of Kazakhstan and the Rules of competitive replacement of posts of scientific and pedagogical staff of higher educational institutions.

The number, personal composition of the competition commission and the terms of its authority are determined by the academic council of the university and approved by the relevant order of the Chairman of the Board of S.Seifullin KazATU.

The competitive commission determines the forms, procedures, and specific terms of the competition, analyzes the tender documentation, and makes a decision on the results of the competition.

The main tasks of the work of the competition commission: providing all equal opportunities for participation in the competition; ensuring fair competition among the contestants; control over observance of objectivity, publicity of the competition.

In the course of the meeting of the competition commission, an interview is held with candidates for the vacant position. The purpose of the interview is to assess the professional and personal qualities of the candidates, taking into account the qualification requirements, characteristics of a particular higher education institution, for the vacant position of which a competition is announced.

The decision of the competition committee on the election of a person by competition is the basis for the conclusion of an employment contract for the teaching staff of the university. Contestants and candidates have the right to appeal the decision of the competition committee to the rector of the university or in court.

The staff of the faculty of the department is 25 employees, of which 4 are doctors of technical sciences, 11 are candidates of technical sciences.

The qualification of the faculty of the department is fundamental to the quality of the educational services provided and it is provided by the systematic assessment of the competence of teachers by the university administration. The list of full-time teachers of the department "Electricity" is presented in table 23.

Table 23 - List of full-time teachers of the department "Electric power supply"

| # | Full Name | Year of birth | Academic degree | Academic title | position |
|---|---|---|---|---|---|
| Department of Power Supply | | | | | |
| 1 | G.G.Tatkeeva | 1966 | Doctor of Technical Sciences | Associate professor | Head of the department |
| 2 | B. B.Utegulov | 1948 | Doctor of Technical Sciences | Professor | Professor |
| 3 | D.S.Akhmetbaev | 1946 | Doctor of Technical Sciences | Professor | Associate professor |
| 4 | E.A.Alpeisov | 1952 | Doctor of Technical Sciences | Professor | Professor |
| 5 | B.A.Bayniyazov | 1969 | Candidate of Technical Sciences | | Senior Lecturer |
| 6 | J.Dosankulov | 1949 | Candidate of Technical Sciences | Associate professor | Associate professor |
| 7 | Y.V.Anisimov | 1941 | Candidate of Technical Sciences | Associate professor | Associate professor |
| 8 | V.I.Krasnikov | 1954 | Candidate of Technical Sciences | Associate professor | Associate professor |
| 9 | A.U.Azhanov | 1953 | Candidate of Technical Sciences | | Senior Lecturer |
| 10 | A.Z.Battalhanov | 1953 | Candidate of | Associate | Associate |

| | | | | | |
|---|---|---|---|---|---|
| | | | Technical Sciences | professor | professor |
| 11 | O.N.Leznaya | 1962 | Candidate of Technical Sciences | Associate professor | Associate professor |
| 12 | A.B.Utegulov | 1976 | Candidate of Technical Sciences | Associate professor | Associate professor |
| 13 | A.B.Uahitova | 1980 | Candidate of Technical Sciences | Associate professor | Associate professor |
| 14 | V.I.Rozhkov | 1983 | Candidate of Technical Sciences | | Senior Lecturer |
| 15 | M.A.Auelbek | 1974 | Candidate of Technical Sciences | | Senior Lecturer |
| 16 | N.K.Sagnaeva | 1964 | Master | | Senior Lecturer |
| 17 | G.N.Ansabekova | 1977 | Master | | Senior Lecturer |
| 18 | N.B.Zhakipov | 1985 | Master | | Senior Lecturer |
| 19 | M.O.Zhumagazina | 1957 | | | Senior Lecturer |
| 20 | Kh.K.Niyazbayeva | 1962 | | | Senior Lecturer |
| 21 | Z.T. Turkebaeva | 1966 | | | Senior Lecturer |
| 22 | Zh.ZH.Bayguzov | 1983 | Master | | Senior Lecturer |
| 23 | A.T.Turgunbaeva | 1959 | | | Assistant |
| 24 | E.K.Sarsembiyeva | 1982 | Master | | Assistant |
| 25 | B.A.Muratov | 1992 | Master | | Assistant |

The basic education of all teachers corresponds to the profile of the department.

Teachers from other departments were involved to give lectures, practical and laboratory classes in the period 2013-2018. The list of teachers is presented in table 24.

Table 24 - List of teachers

| № | Full Name | Year of birth | Academic degree | Academic title | position |
|---|---|---|---|---|---|
| 1 | E.ZH.Sarsikeev | 1987 | PhD Doctor | | Head of the department |
| 2 | S.S.Isenov | 1971 | Candidate of Technical Sciences | assistant professor | Dean of the Faculty |
| 3 | K.K.Zhumagulov | 1950 | Doctor of Technical Sciences | Professor | Professor |
| 4 | M.A.Shukraliyev | 1969 | Candidate of Technical Sciences | Associate professor | Associate professor |
| 5 | A.N.Babko | 1950 | Candidate of Technical Sciences | Associate professor | Associate professor |
| 6 | I.A.Pyastolova | 1950 | Candidate of Technical Sciences | Associate professor | Associate professor |
| 7. | T.S. Gerasimenko | 1981 | Candidate of Technical Sciences | | Senior Lecturer |
| 8. | T.B.Akimzhanov | 1986 | PhD Doctor | | Senior Lecturer |
| 9. | S.K.Zhumazhanov | 1980 | Candidate of Technical Sciences | | Senior Lecturer |
| 10. | A.E.Tursunbaeva | 1971 | Master | | Senior Lecturer |
| 11. | K.A.Ibraev | 1971 | - | | Senior Lecturer |
| 12. | D.T.Tleuzhanova | 1970 | Master | | Senior Lecturer |
| 13. | T.N.Kasyanova | 1971 | Master | | Senior Lecturer |
| 14. | G.O.Suleimenova | 1984 | Master | | Senior Lecturer |
| 15. | S.M.Baltymov | 1991 | Master | | Assistant |
| 16. | G.K.Kubentaeva | 1971 | Candidate of Technical Sciences | | Senior Lecturer |
| 17. | Z.S.Zhaksylykova | 1988 | PhD Doctor | | Assistant |
| 18. | S.P.Martych | 1961 | | | Senior Lecturer |
| 19. | R.K.Kusainov | 1945 | | | Assistant |
| 20. | G.A.Kukenova | 1962 | Candidate of Physical Sciences | | Senior Lecturer |

| | | | | | |
|---|---|---|---|---|---|
| 21. | A.M.Muratbekova | 1960 | Candidate of Pedagogical Sciences | Associate professor | Associate professor |
| 22. | M.K.Akosheva | 1957 | Candidate of Physical Sciences | Associate professor | Associate professor |
| 23. | A.A.Akhmetova | 1978 | Master | | Senior Lecturer |
| 24. | Z.S.Tolegen | 1961 | Candidate of Law | | Senior Lecturer |
| 25. | A.E.Kozhakhmetova | 1969 | Candidate of Law | Associate professor | Associate professor |
| 26. | G.Sh.Baydalina | 1980 | Master | | Senior Lecturer |
| 27. | K.K.Shupshibaev | 1961 | Candidate of Biological Sciences | Associate professor | Associate professor |
| 28. | A. Sh.Utarbaeva | 1971 | Candidate of Biological Sciences | | Senior Lecturer |
| 29. | M. B.Bostubaeva | 1992 | Master | | Assistant |
| 30. | M.M.Makenova | 1989 | Master | | Assistant |
| 31. | A.M.Dzhumagaliyeva | 1974 | Master | | Senior Lecturer |
| 32. | L.K.Smailova | 1979 | Master | | Senior Lecturer |
| 33. | Sh.A.Baisalykova | 1983 | Master | | Senior Lecturer |
| 34. | E.A.Akzhigitov | 1954 | Candidate of Physical and Mathematical Sciences | Associate professor | Associate professor |
| 35. | E.A.Gripp | 1966 | | | Senior Lecturer |
| 36. | A.A.Aryngaziyeva | 1982 | Master | | Assistant |
| 37. | M.I.Baygoshkarova | 1959 | | | Senior Lecturer |
| 38. | G.M.Zhalelova | 1974 | Master | | Assistant |
| 39. | M.D. Zhanysbai | 1993 | Master | | Assistant |
| 40. | B.A.Sagatov | 1958 | | | Senior Lecturer |
| 41. | G.K.Kosmaganbetova | 1975 | Master | | Senior Lecturer |
| 42. | A.B.Tazhikarimova | 1993 | Master | | Assistant |
| 43. | G.K.Shataeva | 1992 | Master | | Assistant |
| 44. | H.B.Tulenova | 1964 | | | |

| | | | | | |
|---|---|---|---|---|---|
| 45. | A.E.Shkurkov | 1951 | | Associate professor | Associate professor |
| 46. | A.ZH.Elemesov | 1972 | | | Senior Lecturer |
| 47. | B.ZH.Mustafin | 1967 | | | Assistant |
| 48. | S.N.Atygaev | 1978 | | | Assistant |
| 49. | D.K.Satbayev | 1978 | | | Senior Lecturer |
| 50. | T.K. Demeuov | 1962 | | | Assistant |
| 51. | Kh.A.Batirov | 1962 | | | Senior Lecturer |
| 52. | S.D.Suleimenov | 1981 | | | Senior Lecturer |
| 53. | Z.T. Turkebaeva | 1966 | | | Senior Lecturer |
| 54. | E.A.Alpeisov | 1952 | д.т.н. | Professor | Professor |
| 55. | A.T.Turgunbaeva | 1959 | | | Assistant |
| 56. | S.M.Baltymov | 1990 | Master | | Assistant |
| 57. | A.E.Tursunbaeva | 1971 | Master | | Senior Lecturer |
| 58. | B.B.Ensepov | 1981 | Candidate of Historical Sciences | | Senior Lecturer |
| 59. | A.M.Koskeeva | 1980 | Master | | Senior Lecturer |
| 60. | U.ZH.Bekmaganbetov | 1975 | Candidate of Historical Sciences | | Senior Lecturer |
| 61. | K.R.Asilov | 1976 | Master | | Senior Lecturer |
| 62. | Zh.R.Abisheva | 1971 | Candidate of Historical Sciences | | Senior Lecturer |
| 63. | A.Zh.Gabdulina | 1978 | Candidate of Historical Sciences | | Senior Lecturer |
| 64. | E.T.Akimbekov | 1964 | | | Senior Lecturer |
| 65. | A.M.Zikerin | 1976 | Master | | Senior Lecturer |
| 66. | H.S.Abdildina | 1978 | Candidate of Physical Sciences | | Senior Lecturer |
| 67. | G.M.Mukhambetkalieva | 1980 | Candidate of Pedagogical Sciences | | Senior Lecturer |
| 68. | A.K.Abdina | 1968 | Doctor of Philosophy | Associate professor | Acting Professor |
| 69. | T.M.Sadykova | 1979 | Master | - | Senior Lecturer |
| 70. | N.F.Kulakova | 1952 | Candidate | | Senior Lecturer |

| | | | | | |
|---|---|---|---|---|---|
| | | | of Agriculture | | |
| 71. | N.K.Sagnaeva | 1964 | Master | | Senior Lecturer |
| 72. | G.I.Salekhan | 1984 | Candidate of Pedagogical Sciences | | Senior Lecturer |
| 73. | K.ZH.Ibrayeva | 1953 | Doctor of Education | Professor | Professor |
| 74. | B.A.Mukusheva | 1955 | Doctor of Education | Professor | Professor |

To better ensure the educational process, the department invites having received a degree teachers, graduate students and doctoral students. Educational Program in relation to the faculty requires compliance with basic education, teaching experience, competence in the taught discipline. In the selection of personnel, the head monitors the educational program, after which an announcement is made in the republican newspapers "Kazakhstanskaya Pravda", "Yegemendi Kazakhstan", and an announcement of available vacancies is posted on the University website in the section "About the University". During the reporting period, 8 employees were hired as assistants, senior lecturers, assistant professors and professors of the department. The manual of the study program at the end of the school year after the monitoring of the study program is submitted to the competition for teaching staff of the department.

Information about the activities of the faculty is available on the university's website in the form of personal pages. In addition, the university has an automated system "PLATONUS", through which access to information about the student's progress is available.

The strategic development of the program is provided by the current staff of the faculty of the department, including:

Alpeisov Esenbay Ashimalievich - Doctor of Technical Sciences, Professor of the Department of Power Supply.

Awards, certificates of honor: Honored Worker of Education of the Republic of Kazakhstan, 2002; The anniversary medal "10 years of the Constitution of Kazakhstan"; Badge "Y.Altynsarin" - 2007; Badge "For merits in the development of science of the Republic of Kazakhstan" 2012; Medal "Veteran of Labor" 2015

Utegulov Bolatbek Bakhytzhanovich - Honored Worker of the Republic of Kazakhstan, Doctor of Technical Sciences.

Awards, diplomas

- Diploma of the Republican Scientific and Technical Society for development and introduction into production of the “Automatic control system for the open pit power supply circuit”;

- The second prize of the competition “For the best development of the proposals of young scientists and specialists in the development of scientific and technical progress in the energy and electrical industry in 1989 under the central board of the All-Union Society of Power Engineers and Electrical Engineers named after Academician G.M. Krzhizhanovsky "for research work" Investigation of the state of insulation and current of single-phase earth fault in the conditions of existing electrical installations 6 kV Rudnya CHP";

- Award for outstanding leadership, this document approves that B.B. Utegulov is included in the International Meeting of Eminent Leaders, for outstanding contributions to modern society, the International Biographical Center. United States, North Carolina, 1999;

- Power of attorney that B.B. Utegulov is an international person of the millennium in the field of science of education signed and issued by the International Biographical Center of Cambridge, England, 2000;

- Certificate confirming that B. Utegulov is included in the number 2000 outstanding intellectuals of the 20th century, in honor of the outstanding contribution in the field of education, signed and issued at the International Biographical Center of Cambridge, England, 2000;

- Badge “For the development of science in Kazakhstan”, MES RK, 2001;

- Badge “For the development of science in Kazakhstan”, MES RK, 2006;

- Winner of the grant “The best teacher of the university - 2005” MES RK;

- Badge “Honored Worker of the Republic of Kazakhstan”, 2007;

- Gold medal named after S. Toraigyrov, 2010

- Badge “For contribution to the development of education”, 2016

Anisimov Yury Vasilyevich - Ph.D., associate professor of the Department of power supply.

Awards, diplomas

- Participant of the exhibition on achievements of the national economy, Moscow, 1984

- Diploma of the Minister of Agriculture of the Republic of Kazakhstan

- Anniversary Medal to the 55th anniversary of S. Seifullin KATU

- Anniversary Medal for the 60th Anniversary of S. Seifullin KATU

Krasnikov Viktor Ivanovich - Ph.D., Associate Professor of the Department of Power Supply.

Awards, diplomas

- Participant in the exhibition of achievements of the national economy, Moscow, 1982.

- Bronze medal

- Diploma of the Vice-Minister of Education of the Republic of Kazakhstan

- Anniversary Medal to the 55th anniversary of S. Seifullin KATU

- Anniversary Medal for the 60th Anniversary of S. Seifullin KATU

Lyuznaya Olga Nikolayevna - Ph.D., Associate Professor of the Department of Power Supply

Awards, diplomas

- Diplomas of the magazine "Radio" -2004-2010.

- Anniversary medal to the 55th anniversary of S. Seifullin KATU

- Diploma FGOU VPO "UGSKHA" Ulyanovsk -2010

Utegulov Arman Bolatbekovich - Ph.D., Acting Associate Professor, Department of Power Supply.

Awards, diplomas

- Laureate of the State Youth Award “Daryn”, 2008;

- Winner of the state scientific scholarship of the Ministry of Education and Science of the Republic of Kazakhstan for 2008-2010. For talented young scientists

- First place in the Republican competition for energy and resource saving projects in housing and communal services, as an artist, 2011

- Winner of the state scientific scholarship of the MES of the Republic of Kazakhstan for 2010-2012. For talented young scientists

Uakhitova Aigul Botanovna - Ph.D., Associate Professor of the Department of Power Supply.

Awards, diplomas

According to the results of the competition, she became the winner of the state scientific scholarship of the MES of the Republic of Kazakhstan for 2008-2010 for talented young scientists.

Diploma “The Best Scholar of the Year” at S. Toraigyrov PSU 2007-2008

According to the results of the competition, he is the winner of the state scientific scholarship of the MES of the Republic of Kazakhstan for 2010-2012 for talented young scientists.

Diploma on Technology Commercialization and successfully completed it. Nation agency for technological development NATD, 2012 г.

Analysis of the qualifications of teaching staff is carried out on the basis of certification.

The faculty of the department meets the qualification requirements of licensing educational activities and has a full knowledge of modern teaching methods, which allows you to organize an effective learning process.

The management of the Educational Program creates a comfortable environment for the fruitful work of employees. At the department, each teacher has his own equipped workplace. In the case, in addition to the stationary points of access to the Internet, there is a wireless network Wi-Fi.

The university has library resources that provide access to international scientific information databases.

At the university, in order to improve the professional level, motivate teachers and encourage employees, there is a rating system and rewards for teachers and staff for personal contribution and results achieved in their work. Employees are rewarded based on the results of the academic year, the success of the admission campaign, for their contribution to the use of innovative technologies in the process of teaching students, certification, accreditation, scientific results, to anniversaries and official public holidays.

There is a rating system for teaching staff and financial support for proactive teachers: the Regulations for the “Best Curator of the Year” competition have been developed and are in force. The regulation on the contest “The best teacher of the year” has been developed and is in force. Other mechanisms for motivating employees to work more efficiently and creatively are rewarding certificates, sending internships through the organization, as well as solving a number of social issues of teaching staff - improving working conditions, ensuring the educational process, the necessary equipment of the new generation.

At the end of the academic year, the faculty of the department submits to the rating commission a questionnaire for determining the rating with copies of supporting documents.

By the decision of the Academic Council, university academic titles - "Associate Professor" and "Professor" are awarded to honored teachers in accordance with the approved "Regulations on the Procedure for Assigning Academic Titles". Teachers who received

certificates "associate professor", "professor" are set the appropriate wage premium.

The program and issues of sociological research are developed by the staff of the sociological laboratory of the Faculty of Humanities, together with the personnel management department and approved by the Chairman of the Board of S.Seifullin.KATU.

The sample of respondents is 30% of the total number of faculty and staff of the university. The sociological survey is conducted separately among the respondents - faculty and respondents - employees of the university.

The department is constantly working to improve the teaching and methodological support of the educational process in the basic and major disciplines. Experts are annually invited to conduct classes in bachelor and master programs from among competent specialists from production (director of Tavrida Electric Astana LLP Makharov B.K., director of NPF Energoservice LLP LLP Karimov KS, chief engineer of Akmola MES AREK JSC Makhmetov E.). The exchange of experience allows solving professional tasks in preparing competitive specialists, identifying priority areas in research and scientific activities, as well as familiarizing future specialists with new regulatory documents and innovative activities in the electric power industry.

Teaching staff of the specialty realize the principles of credit technology of education, technology of project training, development of critical thinking, multi-level education, problem-based training, educational business games, interactive teaching methods, information technology in the learning process.

Questions of the development of new innovative technologies and teaching methods are systematically discussed in the framework of ongoing seminars at department meetings. The use of innovative technologies by teachers contributes to the library, as well as the Internet, which operates almost everywhere in the university.

An important factor is the harmonization of the content of Educational Program with the educational programs of leading Kazakhstan and foreign universities.

In accordance with the Law of the Republic of Kazakhstan on Education, all teachers, at least once in 5 years, undergo advanced training at the republican and international levels and have certificates (Appendix 14.1–14.72).

Advanced training of teaching staff takes place according to the main activities of the department, which are conducting research and teaching disciplines in the field of electric power.

For the professional development of the faculty of the department, annually grants are provided for training employees in doctoral studies. In the specialty 6D071800 - “Electric Power Engineering”, Asainov G.Zh. graduated from doctoral studies at S. Toraigyrov Pedagogical Sate University in 2018, Art. Lecturer of the department, in 2017 Zh.R. Isaeva entered the Karaganda State Tecnnical University, in 2018 doctoral study in KazNAU on the specialty 6D081200 “Power supply of agricultural energy” also under the target grant was received by E.K.Sarsembieva an assistant doctor of the department.

Confirmation of the level of competence of teachers is the effectiveness and quality of teaching, assessed at the University by conducting open training sessions, mutual visits of classes, as well as conducting a survey "The teacher through the eyes of a student." The results of these events serve as the basis for the extension of labor contracts for teaching staff, promotion, and participation in the annual republican competition "The best teacher of the university."

To improve the quality of teaching, to ensure a close relationship with the production of the university, experts in manufacturing are invited as practicing teachers. The staff of the department employs teachers who previously worked in production: candidate of technical scienses A.U. Adzhanov, candidate of technical scienses, associate professor A.Z.Battalkhanov, candidate of technical scienses, associate professor Zh. Dosankulov, candidate of technical scienses M.A.Auelbek, senior lecturer, Master G.N. Ansabekova, senior lecturer M.O. Zhumagazina, A.T. Turgunbaeva (Appendix 15).

Practicing teachers, using their practical work experience, introduce them into the educational process in the form of business games, situational tasks, thereby improving the mastery of the program of disciplines, and developing the professional skills of the future specialist.

The bases of practice are traditionally: KazNIIMESKH JSC, RSE National Research Institute for Industrial Safety, JSC Akmola Distribution Power Grid Company, Astana-REC JSC, Kokshetauenergo LLP, Tavrida Electric Astana LLP, FAMES KEGOK JSC ", LLP" KazTehEnergoExpertiza", LLP" ARMADA SV", Kazakhstan branch Karachaganak Petroleum Operating B.V. and others (Appendix 7.1–7.32).

The University supports young teachers through the provision of housing, material assistance and other types of social assistance, the direction of scientific internship at the expense of the university, the award of initiative and creative young teachers. For example, the young employees of the department "Electricity" were provided with housing: V.I .Rozhkov,

N.B. Zhakipov, Zh.ZH. Bayguzova. 12% of the teaching staff of the department up to 35 years (inclusive) live with their families in housing provided by the university. Each young specialist is assigned a mentor from among the more experienced faculty members.

The qualification of the faculty of the department is fundamental to the quality of the educational services provided and is ensured by the systematic assessment of the competence of teachers by the university administration.

A systematic assessment of the teacher's competence is held annually at the end of the academic year by rating, and according to the schedule, teaching staff conducts open classes where all interested faculty and faculty members can attend. In addition, the teacher's eyes are surveyed by the student, where the student assesses the teacher using a point system.

The teaching load of the faculty is formed in accordance with the annual order to approve the norms of time of the annual academic load on the academic year, in which the volume of teaching load is determined by categories of teachers (professor, associate professor, senior teacher and teacher).

All the planned work of the teacher is included in his individual work plan, which is approved by the dean of the faculty, signed by the head of the department, and is the main document regulating the work of the teacher in a full-time position. All types of work correspond to the mission, goals and objectives of the university as a whole.

Teachers of the specialty of bachelor degree and magistracy "Power engineering" qualitatively conduct individual documentation, correctly and in time fill out individual plans in all sections. All individual documentation of faculty for 3 years is available at the department. At the end of each semester, the implementation of an individual plan is considered by sections.

Teaching staff of the specialty implements the principles of credit technology of education, technology of project training, development of critical thinking, multi-level education, problem-based training, educational business games, interactive teaching methods, information technology in the learning process. Questions of the development of new innovative technologies and teaching methods are systematically discussed in the framework of ongoing seminars at department meetings.

For lectures on most disciplines and practical classes, multimedia audiences are used; laboratory work on most disciplines is carried out using computer technology and specialized software. Practical classes in many courses are conducted using the application programs "MathCAD", "LabVIEW", "MatLab".

The department is constantly working to improve the educational and methodological support of the educational process in the basic and major disciplines. Work is being done on the invitation of leading teachers from other universities and foreign teachers; the exchange of experience allows us to solve professional problems in the preparation of modern, competitive specialists, to identify priority areas in research and scientific activities.

An important factor is the harmonization of the content of Educational Program with the educational programs of leading Kazakhstan and foreign universities.

In order to provide high-quality training specialists at the Department of Electrical Supply, work is underway to expand international cooperation, which is carried out in two main areas - training for teachers and graduates and the organization of research and experimental and scientific-pedagogical practices in foreign universities. The department has cooperation agreements with organizations from Belarus, Bulgaria, Slovenia, Lithuania, Poland, and Russia. Today the department successfully cooperates with the Belarusian State Technological University, Siberian State University and Tomsk Polytechnic University.

In 2014 at the department for 4th year students in the specialty 5B071800 "Electric Power Engineering" lectured Gorakanazh Arosha Chanima Gomez - Professor of the University of Putra (Malaysia).

To deliver lectures to undergraduates, the department constantly attracts managers and specialists from industry who have practical experience in the field of standardization, certification and quality management.

In terms of improving credit technology for 2011, approved by the Minister of Education of the Republic of Kazakhstan, a large role is assigned to the development of academic mobility of students and university professors as part of the Bologna process.

Table 25 shows the invited teachers for the period 2013-2018 (Appendix 16.1–16.6).

Table 25 - Invited Teachers

| # | Full name | Period | University | Order number |
|---|---|---|---|---|
| 1 | Prof. Christoph Braque<br>Teaching lecture<br>and practical classes<br>for students and undergraduates | 01.10.2014 –<br>15.10.2014 г | Higher<br>Belefeld School | No. 509<br>from 09/29/14 |
| 2 | Professor Pavel Zakhrodnik<br>Teaching lecture | 31.10.2014 –<br>30.11.2014 г | Czech-<br>Technical University | No. 612<br>dated 10.29.14 |

| | | | | |
|---|---|---|---|---|
| | and practical classes<br>for students and undergraduates | | | |
| 3 | Professor Roberto Zipollone<br>Teaching lecture<br>and practical classes<br>for students and undergraduates | 14.11.2014 –<br>29.11.2014 г | University of Lacuila, Italy | No. 652<br>from 11/15/14 |
| 4 | Professors Pavel Zahradnik<br>Teaching lecture<br>and practical classes<br>for students and undergraduates | 09.12.2015 –<br>27.12.2015 г | Czech-Technical University | No. 714-H<br>from 11.12.2015 |
| 5 | Ben Taylor<br>Teaching English<br>for graduate students and teachers of the department | 04.09.2018 –<br>28.12.2018 г | Georgetown University (USA) | No. 638-H<br>from 09/05/2018 |
| 6 | PhD doctors Fatih Thomson<br>Teaching English for undergraduates and teachers of the department | 03.09.2018 –<br>28.12.2018 г. | USA | No. 636-H<br>from 09/05/2018 |

In the current academic year, the university developed a work plan for the organization of internal and external academic mobility of students, the Regulation on the organization of academic mobility within the framework of the Kazakhstan ECTS credit transfer system, an information package of university educational programs.

Teaching staff in the field of specialization are involved in scientific and practical activities for the quality of higher education in the specialty. Also, scientists of the department give reviews of scientific reports, recommendations, and dissertations of colleagues from neighboring countries. Ph.D., Professor B. B. Utegulov is a member of the National Scientific Council under the Government of the Republic of Kazakhstan.

The faculty of the department is actively involved in the life of the university community. The teaching staff of the department together with curatorial groups (80% of the teaching staff of the department are curators of groups of different courses) to maintain cleanliness in the city, they are actively involved in all urban subbotniks, also organize charity events and fairs, take part in sports and cultural events of both the city and the university. .

They organize visits to museums, theaters and other cultural and creative places by students. They also hold and take part in thematic exhibitions, forums and conferences.

In 2018, the university organized an international scientific conference “International Conference on Control and Communications (SIBCON-2017)”. The faculty of the department "Power supply" and the Faculty of Energy were the organizers and took an active part in it.

For the last two years teaching staff of the Energy Faculty have been organizing Republican subject Olympiads in specialties among university students in Kazakhstan. In 2017, the faculty of the department was the organizer of the Republican subject Olympiad in the specialty 5B071800 - "Power engineering" and took an active part in the composition of the organizing committee, the appeal and examination board.

To maintain a healthy lifestyle, every year after the end of the first semester during the winter holidays, the university holds sports competitions in 15 titles among faculty members and university staff. The teaching staff of the department actively participates in sports such as football, basketball, volleyball, tennis, and chess.

SWOT analysis according to the standard “teaching staff and teaching effectiveness” is presented in table 26.

Table 26 - SWOT-analysis according to the standard “teaching staff and teaching effectiveness”

| Old sides | Weak sides |
|---|---|
| - Providing our employees with favorable working conditions<br>- providing faculty with opportunities for career growth and professional development<br>- Involvement of practitioners of relevant industries in teaching.<br>- providing guidance on targeted development activities for young teachers<br>- The university has a rating system to motivate the professional and personal development of Educational Program teachers, including encouraging both the integration of science and education, and the use of innovative teaching methods. | - insufficient use of new educational technologies and interactive teaching methods;<br>- low level of proficiency of teaching staff in foreign languages;<br>- Not sufficiently used information and communication technologies in the educational process by teaching staff (for example, on-line training, e-portfolio, MoEP, etc.). |

| | |
|---|---|
| - The faculty takes an active part in the life of society (in the education system, in the development of science, the region, creating a cultural environment, participation in exhibitions, creative competitions, charity programs, etc.).<br>- The work of the faculty is fully consistent with the mission, goals and objectives of the creation and functioning of the organization of higher education;<br>- S.Seifullin KATU is a strategic object for training in the specialty "Power Supply" for the northern region of Kazakhstan.<br>- Professional development of teachers (in higher educational institutions of Kazakhstan, the near and far abroad).<br>- Inviting professors to deliver lecture courses for students and faculty from various Kazakhstan and foreign scientific centers and universities. | - Insufficiently developed academic mobility in the framework of the Educational Program attracting the best foreign and domestic teachers. |
| Old sides | Weak sides |
| - demand for higher education and specialists in the field of energy;<br>- integration of the educational environment of the university with the global trends in the development of education; | - faculty's academic degree reducing<br>- Reluctance of young specialists to work in universities and to be engaged in scientific activities, the likelihood of a shortage of qualified teachers. |

**Conclusion.** Improvement areas:

1. Strengthen the work on the participation of faculty members in national and international competitions, tenders for the purpose of obtaining national and foreign grants funded by research and joint research with research centers in the near and far abroad.

2. To involve in the educational process leading professors of domestic and foreign universities, as well as representatives of employers to conduct classes on specialized disciplines.

3. To ensure the implementation of the multilingual program, to stimulate and improve the level of proficiency in foreign languages of teachers of the department, as well as to increase the number of the basic disciplines and major cycles, read in English.

4. Intensify the work of faculty for publications in foreign editions with a non-zero impact factor.

5. Intensify the internal and external academic mobility of faculty.

6. In the syllabus in the lists of used literature it is necessary to include and use the scientific works of the faculty of the University.

Specialized profile EP 5B071800 / 6M071800 - Electricity contains the following self-assessment of compliance: according to the criteria, the educational program has strong positions - 6, satisfactory - 4, suggests improvement - 2.

## 9 EDUCATIONAL RESOURCES AND THE STUDENT SUPPORT SYSTEMS

Important factor of ensuring quality of education and guarantee of sustainable development of JSC Kazakh Agrotechnical University of S. Seyfullin is continuous improvement of material and information resources. At the university created all conditions for training of students, undergraduates and doctoral candidates, carrying out scientific researches, publications results of research of PPS, employees and students.

The university possesses the sufficient material, information and library resources used for the organization of process of training and education of students. Presence and level of material and technical resources of the university is in process of continuous updating and increase. In the building of the main corps is placed the library and equipped the electronic reading room of the Kazakh agrotechnical university of S. Seyfullin. Students have free access to computers. There is a reading room, the computer hall (with Internet connection).

Electronic library includes electronic literature on disciplines of department. All AMC for 100% in electronic form are placed on the portal of the university to which each student has access through the personal account.

Educational process in laboratories is equipped with the software manuals, textbooks, methodical instructions.At faculty computer classes are used for technical registration of courses and theses and also for acquisition of computer skills and execution of necessary documentation during the practical training.

Today audiences of department are equipped with multimedia boards which are used in educational process.

On laboratory researches work with devices and facilities are conducted by the techniques described in the instructions, it is strictly supervised by the teacher of relevant discipline. Students carry out laboratory researches according to a technique of performance of work according to subject

Educational process of students in specialty of "Power industry" will be organized in specialized audiences (lecture hall No. 1214, 1238, 1241, 1120, 1127, 1126, 1121, 1122). Educational audiences: 1225, 1231, 1236, computer classes (lecture hall No. 1216, 1237).

Specialized laboratories for carrying out educational and scientific work are equipped with devices and means, visual information in official and state languages. Total number of specialized laboratories in the specialty-7. Laboratories are equipped with the operating

installations, demonstration stands and instrumentations and have sufficient spaciousness for holding laboratory researches. Contents and the number of laboratory works correspond to curricula standard and working programs.

In the laboratories of the department "Power supply" there is a modern equipment. The educational program and methodical complex (on the basis of a laboratory complex) "Model of electric system with knot of complex loading" intended for carrying out laboratory works on disciplines: "Power industry", "Relay protection and automation of electrical power systems", "Equipment of high tension", "Power plants and substations", "Power supply", "Electrical networks". There are vacuum breakers manufactured by Tavrida Electric, overstrain limiters on voltage of 110 kV and 35 kV. The educational laboratory complex "Theoretical Bases of Electrical Equipment", "Electrical Equipment and Bases of Electronics" (the computerized version).

Laboratories 1120, 1126, 1127 are completely equipped with 17 new laboratory stands for the total amount of 19,2564 million tenges. Laboratory stands are manufactured by Rosuchpribor Chelyabinsk. Each stand allows performance from 5 to 35 laboratory works on the following disciplines: "The automated electric drive", "Electrical machines", "Wind power", "Technology of installation of electric equipment", "Operation of electric equipment". Information on the classroom fund of specialty "Power industry" is provided in table 7.

The laboratory is equipped with educational stands and simulators in a planned manner. Installation of equipment for electric power industry specialties has been completed:

- computers in number of 10 pieces;

- an interactive board with a projector;

- 10 laboratory complexes on 25 disciplines, at the same time on each universal stand can perform about 40 laboratory works.

- cameras of KSO "Innovation" with the vacuum MiCOM P111R BB/TEL and MPZ switch

- a case of CREWE D-12P with the loading switch.

Table 20 provides information about the classroom fund on the specialty of "Power industry".

Table 27 - Information about the classroom fund on the specialty of "Power industry".

| № | № classroom number | The number of seats | Area | Name of the discipline |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| 1 | 1241 | 36 | 61 м$^2$ | Electrical Lighting, Electrical Safety Basics, Automatic control theory |
| 2 | 1238 | 32 | 59 м$^2$ | Theoretical basics of electrical engineering, Industrial Electronics, Relay Protection, Automatic power supply control systems |
| 3 | 1237 | 32 | 58 м$^2$ | Asymmetrical modes, Fundamentals of the theory of automatic control, Mathematical problems and computer simulation in the power industry, Transients in the power industry |
| 4 | 1120 | 36 | 90 м$^2$ | Electricity, Electrical stations and substations, Electric networks, Power supply, Overvoltage and insulation, Electrical measurements |
| 5 | 1216 | 20 | 30 | PBB, computer modeling, SAUTP, Graphic editors |
| 6 | 1127 | 25 | 40 | Automated electric drive, Solar power engineering, SOE, The use of electrical equipment, ETM, SAUTP Wind power engineering, Electric machines, Decentralized energy supply systems |
| 7 | 1126 | 25 | 40 | AEP, Computer modeling, SAUTP, ETM Electrical machines, AEP, Graphic editors, Electrical technology, policy and legislation |

Every year the financial stability of the university is growing, which makes it possible to strengthen the logistics base. The logistics, library and information resources used for the organization of process of training are sufficient and meet the requirements of the educational program being implemented. At implementation of the educational program applies the system of academic counseling, which has undergone several structural changes in recent years.

Currently, counseling takes place in two forms – teachers meetings with students and on-line counseling.

Effective consulting support for students contributes to the awareness of advisers:

- about the most common option for the choice of subjects, both specialized and general education during an academic survey;

- about the structure of the general education program and the possibility of an individual approach in choosing subjects, based on the student's specialization;

- on the appointment of prerequisites for more in-depth study of subjects;

- about the presence of inefficient installations and procedures, and most importantly, the performance of relevant work aimed at eliminating deficiencies;

- helps to reduce the outflow of students;

- helps to improve student-teacher partnerships;

- motivates students to form their own values, interests and career goals;

- contributes to the development of satisfaction with their university.

To increase the level of competitiveness and demand for the results of research work of the teaching staff of the specialty it is necessary:

- to ensure the maximum use of the research potential of the specialty in the provision of the educational process and the development of scientific activity.

- to improve the system of training scientific and scientific-pedagogical personnel through the master's and doctoral studies, as well as to create favorable conditions for the adaptation of young scientists in the educational services market.

- to strengthen the forms of cooperation with Research Universities for the joint solution of the problems of introducing scientific research into the practice of upbringing and education.

- to develop the existing forms of scientific cooperation with research centers and universities of the CIS countries and abroad.

- to improve the organization of scientific research work for the maximum realization of the scientific potential of students, to provide conditions for preparing the most talented students to prepare for admission to the magistracy, creating a system of moral and material incentives for gifted students.

Students of OP have access to personalized online resources that assist in the selection and achievement of career paths on the portal of the university site. The quantity and quality of modern computer equipment allows students to use relevant, necessary and objective

information to perform essays, coursework and independent work. In the educational process involved 29 names of computer equipment. The educational process in laboratories is equipped with software, teaching aids, textbooks, guidelines. The computer classes at the faculty are used for the technical design of courseworks and dissertations, for acquiring computer skills and drawing up the necessary documentation during the internship.

The planned volume of publication of UML in the state language is carried out according to the plan of publication and purchase through the university library.

The technique of conducting laboratory work on the Electroniks Workbench application program (virtual laboratory work) in the disciplines of TOE, TAU, SPU, Electronics, Automation has been mastered. In the disciplines such as "Electric machines", "Automated electric drive" virtual laboratory work on the program of MathCad and MathLab. In the disciplines such as "Electrical systems and networks", "Transient processes" virtual laboratory work on special application programs. The discipline "Relay protection" is provided by the software for the automation of the calculation. In the lectures and practical classes are use slides and videos on the courses “Power supply”, “Power stations and substations”, “Fundamentals of TB in electrical installations”, “Overvoltage and insulation” produced by well-known electrical companies “SIEMENS” and “ABB”, “Sneider Electric ". Also is used multimedia courses, slideshows (NIE) and codograms ("Electric cars", "Electric drive")

In accordance with intellectual needs, the university has created a learning environment, which includes: technological support for students and teaching staff. Students have free access to personal interactive resources that are available even after school hours, as the appropriate Platonus computer system has been introduced at the university. Students of OP have access to personalized online resources that assist in the selection and achievement of career paths on the portal of the university site. Information on the activities of the faculty is available on the university's website. In addition, the university has an automated system "PLATONUS", through which access to information about the student's progress.

The department has an electronic library, including electronic literature on the disciplines of the department. The department has a bank of test sessions.

To provide opportunities to work with various internal and external resources, a wireless Wi-Fi network is also used. Such a solution meets the modern requirements of providing students with constant access to educational resources of the local network and the Internet.

The content of information, reference and methodological materials are formed by the department of management and quality systems, which is reviewed and approved by the

academic council of the university. If necessary, changes and adjustments are made to the above documents to improve the documents. The completeness and adequacy of this document lies with the developer and the persons who specified in the approval sheet. Academic support for students is carried out as follows, the academic leave of students is issued in two cases, the first - for health reasons, the second - for child care.

The library is located in the corps of the main building and in other buildings of the S. Seifullin Kazakh Agrotechnical University, and an electronic reading room is equipped. Students have free access to computers. There is a reading room, a computer room (with Internet access).

An electronic library, including electronic literature on the disciplines of the department. All AMC 100% in electronic form are placed on the portal of the university, to which each student has access through his personal account.

The department has all the educational and methodical documentation (GOSO, special standard curriculum, working curriculum, standard curriculum on disciplines, working curriculum on disciplines), necessary for the preparation of bachelors and masters. Readiness of AMC in all disciplines of the specialty is 100%. The quality of the structural elements of EMCD is satisfactory.

The electronic library of the university has access to electronic resources through the Internet system, which integrates Kaztelecom, Server (Dell), Internet (ADSL), university administration, dean's office, departments and other structural divisions.

In the accommodations where the students live, there is an access to the computer room with wireless Internet Wi-Fi. For self-education of students and to facilitate the accessibility of information in the library there are the following catalogs: alphabetical, systematic and electronic, there are also card files of newspaper and magazine articles. Information support of educational and scientific-educational activities, with access to full-text electronic resources of educational and scientific importance, fully satisfies the needs of students and faculty of the university

A wireless Wi-Fi network is also available to provide opportunities working with various internal and external resources. Such a solution meets the modern requirements of providing students with constant access to educational resources of the local network and the Internet. The educational process in laboratories is equipped with software, teaching aids, textbooks, guidelines.

Financing of research is carried out through direct agreements with enterprises, receiving republican or international grants. Assistance in the conduct of research work of young scientists and students is carried out at the department through the consultation of teachers and business leaders, where you can go through training, industrial practice.

The plans approved by the head of the department of all teachers of the department are provided to the department of science and innovation. After consideration and approval of the NTS of the submitted materials and scientific leaders of the topics, an order is issued at the university, approving the topics of research, scientific leaders and performers. A Plan for the publication of printed materials (monographs, textbooks, manuals, lectures, guidelines, recommendations, workbooks, etc.) is approved by the Chairman of the Board. Manuscripts of works recommended for publication are sent for editing after concluding a bilateral agreement between the author (s) and the university about the publication, payment and distribution of scientific and educational literature.

Editing of works in the state and Russian languages will be done in the publishing department.

Textbooks, monographs, tutorials, recommendations after consideration at the methodological council of the university are reviewed and approved by the University Academic Council. In the accommodations where the students live, there is access to the computer room with wireless Internet Wi-Fi. Information resources and library fund. Computer classes (1237 aud.) are consolidated into a local network that has constant access to the general network of the university and the Internet. Other lecture halls also have access to the network via Wi-Fi connection. To provide opportunities to work with various internal and external resources, a wireless Wi-Fi network is also used. Such a solution meets the modern requirements of providing students with constant access to the educational resources of the local network and the Internet.

The electronic library of the university has access to electronic resources through Internet systems, which integrates Kaztelecom, Server (Dell), Internet (ADSL), university administration, dean's office, departments and other structural divisions.

In accordance with intellectual needs, the university has created a learning environment, which includes: technological support for students and teaching staff.

An important factor in ensuring the quality of education and guaranteeing the sustainable development of S. Seifullin Kazakh Agrotechnical University JSC is the continuous improvement of logistics and information resources. The university considers the

needs of various groups of students. For example, in the period from November 24-29, 2016 in the assembly hall of the agronomical faculty was held meeting with the psychologist MG Bukeeva with students without parental care, with disabled and as well as students with learning difficulties. At this pre-examination psycho-preventive event, exam preparation issues were discussed, practical recommendations were given to work with anxiety, concern and stress. Psychological techniques worked out.

Social support for students is also provided. For example, from January 2016 on the personal proposal and the active work of the rector, a deputy of Maslikhat in Astana, Kurishbayev A.K., with the support of Akimat of Astana, students will be able to get preferential tickets for city public transport with a 50% discount. 1528 students of S.Seifullin KazATU passed the documents on this benefit. Among them, 142 students without parental care will receive travel tickets for free. 1,386 students from large, incomplete, low-income families, students with disabilities will receive preferential travel tickets. SWOT analysis according to the standard “Educational resources and student support systems” is presented in Table 28.

**Table 28 - SWOT-analysis according to the standard "Educational resources and student support systems"**

| Strong sides | Weak sides |
|---|---|
| - material and technical base meets modern requirements;<br>- use of modern interactive equipment with the appropriate software;<br>- Special audiences were organized for learning the use of computer equipment and other modern teaching aids;<br>- it has its own educational Internet portal, a computer and network infrastructure is developed;<br>- The university has a modern library. | - insufficient provision of standard textbooks in the state language for individual disciplines.<br>- rapid rate of moral obsolescence of the material and technical base, library collections, computer equipment. |
| Strong sides | Weak sides |
| - a wide range of material, information, library resources in consumer markets; | - inflationary processes that lead to a constant increase in the cost of material, information, library resources; |

| | |
|---|---|
| - high rates of scientific and technical progress, allowing to improve the quality of the material and technical base of universities and the level of training of graduates. | - the lack of a necessary book complex, textbooks, software in the state language. |

**Conclusions. Improvement areas:**

1. To increase the availability of textbooks and teaching aids in English;

2. To intensify work on raising funds for additional financing of the educational program, both from budget financing and from contractual activities;

4. Improving the material base, updating computer equipment to improve the quality of educational services;

5. To improve the automated electronic document management system

Specialized profile OP 5V071800 / 6M071800 - Electricity contains the following self-assessment of compliance: according to the criteria of the OP, satisfactory - 6, suggesting improvement - 3.

## 10 PUBLIC INFORMATION

The university website www.kazatu.kz provides full information about the University as a whole, about educational programs of the undergraduate 5B071800 - “Power industry” and magistracy 6M071800 “Power industry”, criteria for the selection of students, the expected results of the development of the educational program.

The University carries out educational activities through the automated information system Platonus. This program has a centralized database, which reflects all the actual learning processes. All faculty members and employees of the university departments were assigned user rights and roles.

Support of various educational, scientific, methodical information on the site in an up-to-date state allows citizens to receive complete, reliable, socially significant information about the provided services and in the areas of educational activities, services for applicants, students, teachers and visitors of the site. It provides interactive interaction between the university and site visitors, teachers and students, staff and students. There is a rapid response of the university management to questions, complaints from students, teachers with the adoption of necessary measures of influence, or the correction of a disputable situation.

The site contains all the necessary information about the awarded qualifications, available opportunities for teaching students, scientific programs and achievements in this field.

The site contains all the necessary information about the educational program 5B071800 "Power Engineering", the selection criteria for students for it, the teaching, training and assessment procedures used, the percentage of progress and the available opportunities for teaching students, scientific programs and achievements in this area.

In drawing up an EP development plan, security was considered with all the necessary resources for the implementation of this EP. The OP development plan is posted on the website www.kazatu.kz. The department analyzed the provision of specialty with information resources, staffing, evaluation of material and technical base, considering the number of students enrolled. The results of the analysis showed that the availability of resources by the department makes it possible to implement this educational program. Based on the analysis of the provision of EP with resources, an annual enrollment of students is planned.

Improvement of education in the specialty of "Electrical Power" is aimed at training highly qualified specialists, which involves the formation of highly educated creative individuals. Educational programs are constantly refined and improved in accordance with the pace of development of the electric power industry. Over the last 5 years of educational activity, educational programs by specialty were revised, which is connected with the introduction of new state compulsory education standards of the Republic of Kazakhstan.

Formation of the number of students for the 1st course in S. Seyfullin KazATU is carried out according to Standard Regulations of Admission on training in the organization of education realizing professional training programs of the higher education.

In the course of its activities, the selection committee of S. Seifullin KazATU was also guided by regulatory documents, reference materials, guidance letters of the Department of Higher and Postgraduate Education, NTT on issues of admission to higher educational institutions.

A number of students is formed when people are admitted to the number of students who are most prepared for studying at a higher educational institution, who deliberately chose a specialty, scored the necessary number of points based on the results of the UNT secondary school graduates, KTA secondary education graduates on the basis of state order (grant) and on a commercial basis, as well as specialists with diplomas for a second higher education on the basis of an interview.

The movement of the number of students occurs as a result of deduction, transfer, recovery of students, leaving for a second year of study and the provision of academic leave. Deductions, transfers, recovery of students, leaving for a second year of study and granting academic leave is carried out on the basis of the Methodological Instruction on the order of deduction, transfer, restoration and provision of academic leave for students of S. Seifullin KATU (MI QSM 065.05A-2013).

Applicants can learn about admission rules on the website www.kazatu.kz. They will be informed about the transfer from course to course, from other universities, the procedure for transferring credits earned at other universities, deduction from the educational institution in the dean's office and office-registrar.

After the formation of a number, in the academic calendar for the first courses, the first week is devoted to the training and informing newly admitted students about the rules of credit technology. This includes general questions of the organization of the educational process, questions of planning by IUP students, acquaintance of students with a reference guide, QED

in the specialty, forms of educational documentation, etc. At the university special academic services have been created to implement the credit system of education that assist students in the selection and implementation of their educational trajectories and in the development of academic disciplines. Special academic services are the office of the registrar and the service of advisors who assist students in choosing an educational trajectory.

The registrar's office, guided by the approved individual study plans and official information about the students number, forms academic flows, study groups and subgroups. The subsequent progress of the students is monitored by the dean's office, the department: (control of attendance, progress, payment of contracting services, results of examinations, analysis of the adaptation period of students).

At the university systematic work is underway in an employment promotion. The main action of the university for employment of graduates for the last years holding job fairs which became traditional (http://kazatu.kz/ru/obrazovanie/centr-kareri-i-biznesa/trudoustroystvo/).

On the website of S.Seifullin university, in the section of training - employment and career provided information about the employment of graduates for the period from 2012 to 2017. There is also a list of vacancies for 2018. The resumes of graduates of various specialties are placed, which makes it possible for employers to choose among applicants for employment (http://kazatu.kz/ru/obrazovanie/centr-kareri-i-biznesa/rezyume-vipusknikov-2018-goda/) Since 2015, S.Seifullin KazATU operates a career and business center, which serves as a key link between the university and employers, assists students and graduates of the university in planning and developing careers, as well as in establishing and maintaining communication with the university .

The Center provides information on the places of professional and research practices; information about vacancies and offers from potential employers; information about career events. The university has the Alumni Association, which provides sponsorship assistance to low-income students and employment assistance. An important factor in the professional activity of graduates is the monitoring of employment. The department constantly monitors the work of graduates, invites to meet with freshmen, helps in further professional growth through training in the magistracy. Graduates of the specialty electric power industry have a good feedback from the employers.

On the university website www.kazatu.kz, the press center posts up-to-date, fresh information about upcoming events, conferences and other events held by Saken Seifullin Kazakh Agrotechnical University. The most interesting events are covered on the pages of the

university edition. For the past 45 years, the newspaper of “My Kazakhstan” has been published in the university. The publication highlights the bands of student achievements in science, study, sports. “My University” tries to cover comprehensively the life of the university, not forgetting about that the intellectual potential of society is being created here at the university.

At the press center, a student television studio operates, producing weekly news, which is broadcast on the internal broadcasting at the university, as well as on the social network pages of the university. Student TV studio is working on the creation of copyright programs and talk shows with the participation of students and teachers.

Also, university has its Facebook page, where the results of educational, scientific and cultural activities of the university are presented. More than 1,300 subscribers have signed to the official Facebook page, as well as university staff and faculty members make a repost of important information about the achievements of the university (https://web.facebook.com/kazatukzkz/).

Faculties of the university as well as the selection committee of S.Seifullin KazATU (https://web.facebook.com/priem.student1957/).The faculty of the department also actively disseminate information through social networks. So, the preparation of image articles in the republican, industry-specific media, radio or TV performances, as well as publications on the activities of the university on its individual or official page on social networks, on the G-Global platform and other platforms is considered in the overall rating of the faculty for a premium.

Innovative offers from people who interested on the improvement of activity of OP can act through communication (on the official blog www.kazatu.kz, e-mail communication, an interview with potential employers), and personally (in reception hours of visitors; performances on Scientific and Trustee councils of higher education institution, questioning of employers during the fair of graduates).

The university conducts public information explaining the country's national development programs. Since February 1, 2017 in the Kazakh Agrotechnical University of S.Seifullin held a discussion of the Message of the Head of State Nursultan Nazarbayev to the people of Kazakhstan “The Third Modernization of Kazakhstan: Global Competitiveness” with the participation of leading scientists, teaching staff, doctoral students, undergraduates and students of the university (http://kazatu.kz/ru/news/? id = 5980). According to the instructions of the President of the Republic of Kazakhstan N.A. Nazarbayev, on the basis of

the university will be created the country's first world-class research university in the field of agriculture.

Also, on its Facebook page, the press center posts up-to-date, fresh information about upcoming or past events. So, news about the beginning of the work of the selection committee placed on the site. Reception 2018! Entrant-2018! https://web.Facebook.com/events/582882962079442/.

Support for various educational, scientific, methodical information on the site in a current status allows citizens to receive complete, reliable, socially significant information about the provided services and areas of educational activities, services for applicants, students, teachers and visitors of the site.

Audited financial statements prepared by employees of the financial department and is available on for previous years on the website of the university (http://kazatu.kz/ru/ob-universitete/finansovaya-otchetnost/).

S.Seifullin Kazakh Agrotechnical University has an official website, freely accessible from the university's unified information network, as well as to the Internet by supporting the mission, goals and objectives of the university. All types of information are kept up-to-date on this site by constantly updating content in three languages (Russian / Kazakh / English).

Orders on the university, decisions of the Academic Council of the University and the Faculty and other collegial bodies are posted on the website, paper versions of the orders and decisions of the academic councils are sent to the departments for reviewing. The website of the university provides full information about the University as a whole, about the educational programs of the undergraduate 5B071800 "Electric Power" and magistracy 6M071800 "Electric Power".

On the page https://web.facebook.com

In the newspaper of "My University", bands are allocated for student achievements in science, studies, and sports. "My University" tries to cover comprehensively the life of the university, not forgetting that is here, at the university the intellectual potential of society is being created.

For the purpose of accessibility to the public information about teaching staff on the website of S.Seifullin KATU posted a summary of the heads of departments, which are constantly updated. Information about the faculty of the department of electricity supply is presented in sections of departments and faculties, with brief biographical information and a list of publications in scientific journals

(http://kazatu.kz/ru/obrazovanie/fakulteti/energeticheskiy-fakultet/kafedra-elektrosnabjeniya/pp kafedri-elektrosnabjeniya/). The resume also includes phone numbers of employees and their e-mail for effective communication between students and faculty. The policy of the university is aimed at improving the web resource of the university, thus modifying both the technical functionality and the information component of the site. Open access of information on PPP is aimed at improving the principles of transparency and openness in the activities of the organization. The university cooperates with 26 international organizations and programs from 9 countries around the world: TEMPUS, ERASMUS MUNDUS, FAO, (European Union), TIKA, Mevlana Exchange Program (Turkey), MASHAV, (Israel) IAMO, LOGO eV, Konrad Adenauer Stiftung, DEULA, DAAD, APOLLO, John Deere , CLAAS, Wiehenstephan-Triesdorf (Germany), AF (French Alliance), ESA (France), Qualita Studio, FederBio, (Italy), Cochran Fellowship Program, USDA, USAID, Borlaug Fellow-ship Program, FULBRIGHT, (USA), JICA (Japan), Chinese Machinery Institute (PRC). The university has signed over 200 contracts and memorandums of cooperation with universities and research centers from 35 countries of the world. A full list of treaties and memorandums and the main areas of international cooperation are also presented on the university website in the international cooperation section (http://kazatu.kz/ru/ob-universitete/centr-razvitiya-mejdunarodnogo -sotrudnichestva-i-poliyazichnogo-obrazovaniya/mejdunarodnoe-sotrudnichestvo).

This information may be useful for students and undergraduates in the specialty of Electric Power Industry in planning internships or implementing a program of external academic mobility.

On the official website of the university presents information about the achievements of the university in the rankings (http://kazatu.kz/ru/ob-universitete/dostijeniya-universiteta-v-reytingah/). There are given a list of foreign and Kazakh agencies in which the university takes part in ratings, information is also provided by year and place of the rating. Reference is also made to external resources based on the results of external assessment procedures.

For example, in 2016 S.Seifullin KATU was first noted in the ranking of universities in Eastern Europe and Central Asia of the QS University Rankings: EECA 2016 top 200, which included only 18 universities in Kazakhstan. S.Seifullin KATU participates in two national and 2 foreign rankings (QS and Times Higher Education).

The university participates in world and Kazakhstan rankings, foreign agencies QS World University Rankings, Times Higher Education World University Rankings, the

Webometrics Ranking of World Universities and Kazakhstan ratings Independent Accreditation and Rating Agency (IAAR), the Republican Rating Agency (RAA). (http://kazatu.kz/ru/ob-universitete/dostijeniya-universiteta-v-reytingah/).

Webometrics Ranking of World Universities ranking is set by Spanish research team Cybermetrics Lab., evaluates how a particular university is represented in the global Internet space. At the moment, in the ranking of Webometrics, S.Seifullin KATU takes 14281 position.

S.Seifullin KATU a participates in two national rankings and 2 foreign ones (QS and Times Higher Education):

SWOT analysis according to the Public Information standard in Table 28.

**Table 28 - SWOT Analysis for the Public Information Standard**

| Strong sides | Weak sides |
|---|---|
| - it has its own educational Internet portal, a computer and network infrastructure is developed;<br>- the university has a modern library. | - insufficient provision of standard textbooks in the state language for individual disciplines. |
| Potential external opportunities (O): | Potential external threats (T): |
| - a wide range of material, information, library resources in consumer markets; | - inflationary processes that lead to a constant increase in the cost of material, information, library resources; |

**Conclusions. Improvement areas:**

1. To place information about graduates of educational programs of the university on the tab of the site about employment with the subsequent distribution to specialized organizations.

2. To intensify the work of the site in three languages.

3. Update the page of the Department of "Electricity" on the website of the University.

4. Strengthening the work on public awareness of cooperation and collaboration with partners in the framework of the EP.

5. The university needs to strengthen the participation of the university in a variety of external assessment procedures.

Specialized profile OP 5V071800 / 6M071800 - Electricity contains the following self-assessment of compliance: according to the criteria, the OP has a strong position - 7, satisfactory - 5, suggested improvement - 1.

**REPORT**

**on the implementation of recommendations of the external expert committee of Independent accreditation and rating agency for the technical cluster on the educational program 5B071800 / 6M071800 "Electrical power engineering"**

**According to the standard "Management of the educational program":**

The adjustment plan for the development of the "Electric Power Supply" educational program was made. The development plan of the educational program was adjusted in accordance with the current University Development Strategy (minutes № 2, dated 09.29.2015). There is a monitoring done periodically of development plan of the educational program. Employers, teachers of the department participated in the discussion of the development plan.

**According to the standard "Management of the educational program"**

When analyzing the development plan of the educational program, possible risks of the development plan of the educational program "Electrical power engineering" are considered.

The possible risks of the development plan of the educational program "Electrical power engineering" are:

- Doctorate Level Courses deficiency (PhD);
- dynamics of changes in the external environment (socio-economic situation, demographic situation);
- changes in the regulatory documentation that regulates the educational activities of universities;
- availability of legislative and regulatory requirements that limit the effectiveness of the implementation of plans;
- lack of application of new educational technologies and interactive teaching methods.

The VIII Republican subject Olympiad among students of the specialty "Electrical power engineering" was held in April 2017 on bases of S. Seifullin Kazakh Agrotechnical University. The following participants attended the Olympiad: JSC "Almaty University of Power Engineering and Telecommunication", M. Kh. Dulati Taraz State University, Al-Farabi Kazakh national university, S. Toraighyrov Pavlodar State University, M. Auezov South Kazakhstan State University, Rudny Industrial Institute, M. Kozybayev North-Kazakhstan

State University, Korkyt Ata Kyzylorda State University, O.A. Baikonyrov Zhezkazgan University, M. Tynyshpayev Kazakh Academy of Transport and Communications.

**According to the standard "Specific character of the educational program":**

All teachers of the department and all invited interested people take part in the meeting of the department on the development and examination of the MEP of "Electrical power engineering" (minutes No. 2 dated 09.29.2015). The range of constituencies includes all participants of the implementation of the educational program, as well as employers - research institutes and power industries of various forms of ownership.

The model of the graduate of the educational program "Electrical power engineering" for two levels of education (BA-MA) has been supplemented considering the national qualifications framework and the needs of key employers.

The key employers are "Tavrida Electric Astana" LLP, "AREC" JSC, "Astana Kalalykzharyk" LLP, "Astana-REC" JSC, AstanaEnergoSbyt LLP, FABPS KEGOC JSC, "Astana Electrotechnical Plant" LLP.

In 2017, changes were made to the MEP and EDC of "Electrical power engineering" specialty. Considering the views of employers and teaching staff of the department, the following disciplines were included: "Microtechnology in power engineering", "Receiver of electric energy", "Energy saving", "Electrical measurement".

**According to the standard "Teaching staff and teaching potency"**

A plan for invitation foreign scientists to conduct classes was developed in the department "Electric Power Supply". In 2014-2015, Gorakanage Arosha Chandima Gomes, PhD, Professor of Electrical and Electronic Engineering Department at the "Universiti Putra Malaysia", conducted classes during 3 weeks. In 2015, Christoph Johannes Bracket, Doctor of Economics and Social Sciences of Fachhochschule des Mittelstands, Bielefeld, Germany, gave lessons to the students in the master's programme of "Electrical power engineering" specialty.

**According to the standard "Students"**

Multilingual education is planned at the undergraduate level at the "Electrical power engineering" specialty since 2017. In 2014, the specialty of the 6M071800 master course - "Electrical power engineering" is taught in 3 languages. Among 14 disciplines: 6 disciplines are given in English, 4 - in Russian, 4 - in the Kazakh language. disciplines. In 2017, new disciplines were introduced to the curriculum of master course specialty "Electrical power engineering": "Optimization of the power supply systems of rural, industrial and energy enterprises", "Power converting equipment", "Sustainability of electric power systems".

A paragraph on implementation of dual education in teaching “Electric Power Supply” discipline on bases of FABPS KEGOC JSC and on bases of “AREC” JSC is included in the program of improving the quality of practical training of students of 5B071800 - “Electrical power engineering” specialty in 2015-2020.

The following seminars were conducted at the Department of “Electric Power Supply” by the teachers of the department:

1 Study of the advanced world and domestic pedagogical experience in the field of innovations, selection and implementation of technologies and methods in the educational process, corresponding to the specifics of the specialty and the disciplines taught (December 2015);

2 Introduction and application of technologies and methods in the educational process (April 2016).

All the interested people are informed about the goals and objectives of the MEP of “Electric Power Engineering”. (Teaching staff, students and employers). Modular educational programs are written on the basis of the request of employers; the teaching staff of the department develop programs and discuss at the meeting of the department (Minutes № 2 of 09.29.2015).

A paragraph on the possibility of passing a commission check on knowledge of safety with electrical installations, in expert organizations accredited by the Committee of Atomic Energy Supervision and Control of the Ministry of Energy of the Republic of Kazakhstan and the possibility of receiving an approved certificate for electrical installations access permit under qualification II or III is included program of improving the quality of practical training of students of 5B071800 - “Electrical power engineering” specialty in 2015-2020.

The catalog of elective disciplines of “Electrical power engineering” educational program includes courses that form students’ competencies aimed at employment and career development. The disciplines of “Electric Power Supply”, "Power stations and substations", “Electric networks and systems”, “Relay protection and automation of electric power systems” allow to expand the professional competencies that are necessary for further employment. Graduates of the specialty “Electrical power engineering” are in demand in the labor market. Employment is possible in the following enterprises: “KEGOC” JSC, “SamrukEnergo” JSC, “AREC” JSC, “Astana-REC” JSC, “KokshetaunEnergo” LLP, “Karaganda Zharyk” LLP, Tavrida Electric Astana” LLP, AstanaEnergoServis LLP, KazelEktroMontazh LLP,

“Ekibastuz RPS” LLP, “MAPEP-Kazatomprom” LLP, KazakhEnergoExpertiza JSC and others.

**According to the standard “Available Resources for Educational Programs”:**

By the date of January 1, 2016, the scholarly library consists of 1,577,076 storage items, among them 806,308 items of this are in the state language; 95,169 items are in electronic format and whereof 2520 items are authored by teachers’ staff, 4582 electronic publications in scientific journals. Via university e-library on the range of IP addresses of the university, there is an access to remote information resources, leading e-libraries of the world, such as Thomson Reuters, SpringerLink, CAB Abstract. For the Russian databases “Lan publication”, “eLibrary.ru”. Table 30 shows the total library stock.

Таблица 30 – Library Collections

| Indexes | 2014 | 2015 | 2016 |
|---|---|---|---|
| Library Collections, items in total | 1360320 | 1466963 | 1577076 |
| including in Kazakh language | 584500 | 604800 | 806308 |
| Study materials, items in total | 663397 | 756755 | 853120 |
| including in Kazakh language | 501082 | 540012 | 718441 |
| including in English language | 639 | 942 | 541 |
| eBooks | 75341 | 82742 | 95169 |
| including in Kazakh language | 20361 | 22465 | 22656 |
| Research literature, items in total | 587033 | 593122 | 594215 |
| including in Kazakh language | 59174 | 61015 | 61230 |
| Fiction books, items in total | 34549 | 34344 | 34572 |
| including in Kazakh language | 3883 | 3773 | 3981 |

Library Collections in the state language increased from 42% in 2014 up to 51,5% in 2016.

№ 195 agreement dated 12.04.16 is signed for purchasing books in English totaling 79 items costing 1,679,095 tenge.

In 2016, it is planned to publish 45 books of teaching materials authored by the teaching staff. Table 31 shows the library collection in the context of specialties.

**Table 31 – the library collection in the context of specialties.**

| № | Specialty title | 2014-2015 | | | 2015-2016 | | |
|---|---|---|---|---|---|---|---|
| | | Total in Russian | Total in Kazakh | Total in English | Total in Russian | Total in Kazakh | Total in English |
| 16 | "Electrical power engineering" | 70132 | 25864 | 44 | 75344 | 31310 | 65 |

**According to the standard "Available Resources for Educational Programs":**

Currently, there is a program for widespread introduction and application of innovative technologies in the educational process of "Electrical power engineering" department in 2016-2020.

The purpose of the Program is to improve the quality of educational services up to the international level and to increase the efficiency of the educational process via widespread introduction and application of innovative technologies in the educational process of "Electrical power engineering" department.

Program Objectives:

1. Study of the advanced world and domestic pedagogical experience in the field of innovation in order to select the most appropriate teaching methods considering the specifics of "Power Engineering" educational program and the disciplines taught in the "Electric Power Supply" department.

2. Introduction of selected technologies and methods in the educational process in the "Electric Power Supply" department in 2016-2020.

3. Study of innovation technologies in the corresponding fields of science and production, introducing them in the educational process in the department in 216-2020.

4. Monitoring the effectiveness of application of innovative technologies in the educational process.

5. Sharing the most effective teaching methods at the university via giving open classes, seminars, publishing materials on the results of implementation.

## COMMISSION FINDINGS ON SELF-ASSESSMENT

| № o\n | Assessment criteria | Educational organization position | | | |
|---|---|---|---|---|---|
| | | **Strong** | **Satisfactory** | **Suggests improvement** | **Unsatisfactory** |
| **According to the standard "Management of the educational program":** | | | | | |
| **1.** | The university must have a released quality assurance policy. | | + | | |
| **2.** | The quality assurance policy should reflect the correlation between research, teaching and learning. | | + | | |
| **3.** | The university should demonstrate the development of quality assurance culture, including in the context of the EP. | | + | | |
| **4.** | Commitment to quality assurance should relate to any activity performed by contractors and partners (outsourcing), including implementation of joint / two-diploma education and academic mobility. | | | + | |
| **5.** | EP management ensures the transparency of the development plan of the EP based on the analysis of its functioning, the real positioning of the university and the focus of its activities on meeting the needs of the state, employers, stakeholders and students. | + | | | |
| **6.** | EP management demonstrates functioning of the formation mechanisms and regular review of the EP development plan and monitoring its implementation, assessing the achievement of learning goals, meeting the needs of students, employers and society, making decisions aimed at continuous improvement of EP. | + | | | |
| **7.** | EP management should involve representatives of groups of stakeholders, including employers, | + | | | |

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| | students and teaching staff in the formation of a development plan for EP. | | | | |
| **8.** | EP management must demonstrate the distinction and uniqueness of the EP development plan, its consistency with the national development priorities and the development strategy of the educational organization. | + | | | |
| **9.** | The university should clearly define the responsible people for business processes in the framework of the EP, the definitive assignment of duties among the staff, the delimitation of the functions of collegiate authorities. | + | | | |
| **10.** | EP management must provide evidence of the transparency of the educational program management system. | | + | | |
| **11.** | EP management must demonstrate the successful operation of the internal quality system of the EP, including its design, management and monitoring, their improvement, making decisions based on facts. | | + | | |
| **12.** | EP management should implement risk management. | | + | | |
| **13.** | EP management should ensure the participation of representatives of interested people (employers, teaching staff, students) in the collegiate authorities of the educational program management, as well as their representativeness in making decisions on management of the educational program. | | + | | |
| **14.** | The university should demonstrate innovations management in the framework of the EP, including the analysis and implementation of innovative proposals. | | + | | |
| **15.** | EP management must demonstrate evidence of openness and accessibility for students, teaching staff, employers and other interested parties. | | + | | |
| **16.** | EP management must be trained in management of educational programs. | | + | | |
| **17.** | EP management should do everything for the progress made since the last external quality assurance procedure was considered in preparing | | + | | |

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| | for the next procedure. | | | | |
| **Total according to the standard** | | **5** | **11** | **1** | |
| **According to the standard "Development and approval of educational programs"** | | | | | |
| **1.** | The university should ensure the functioning of the system for collecting, analyzing and managing the information through the use of modern information and communication technologies and software. | | + | | |
| **2.** | EP management should demonstrate a system use of the processed, valid information to improve the internal quality assurance system. | | + | | |
| **3.** | Within the EP there should be a system of regular reporting, reflecting all levels of the structure, including an assessment of the effectiveness and efficiency of the activities of divisions and departments and research. | | + | | |
| **4.** | The university should establish the frequency, forms and methods of evaluating EP management, the activities of collegiate authorities and structural divisions, senior management, the implementation of research projects. | + | | | |
| **5.** | The university must demonstrate how to determine the order and ensure information protection, including determining the responsible for the accuracy and timeliness of information analysis and data provision. | | + | | |
| **6.** | An important factor is involvement of students, employees and teaching staff in the process of collecting and analyzing information, as well as making decisions based on them. | | + | | |
| **7.** | EP management must demonstrate availability of a communication mechanism with students, employees and other interested people, including availability of conflict resolution mechanisms. | | | + | |
| **8.** | The university should provide a measure of the degree of satisfaction of the needs of faculty, staff and students in EP framework and demonstrate evidence of elimination of the detected deficiencies. | | + | | |

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| **9.** | The university should evaluate the effectiveness and efficiency of activities, including in the context of the EP. | | + | | |
| | Information, collected and analyzed by the university should consider: | | | | |
| **10.** | key effectiveness indicators; | | + | | |
| **11.** | the dynamics of the training load in the context of forms and types; | + | | | |
| **12.** | level of achievement, student achievement and expulsion; | + | | | |
| **13.** | students' satisfaction with the implementation of the EP and the quality of education in the university; | + | | | |
| **14.** | availability of educational resources and support systems for students; | + | | | |
| **15.** | employment and career growth of graduates. | + | | | |
| **16.** | Trainees, employees and teaching staff must give documentary evidence of their consent for processing their personal data. | | + | | |
| **17.** | EP management should assist in providing all relevant information in corresponding fields of science. | + | | | |
| **Total according to the standard** | | **7** | **9** | **1** | |
| **According to the standard "Development and approval of educational programs"** | | | | | |
| **1.** | The university should determine and give documentary evidence for the EP development of and their approval at the institutional level. | + | | | |
| **2.** | EP management must ensure that the developed EPs comply with the established goals, including the expected learning outcomes. | | + | | |
| **3.** | EP management must ensure the availability of developed models of EP graduate, describing learning outcomes and personal qualities. | + | | | |
| **4.** | EP management must demonstrate an external examination of the EP. | + | | | |
| **5.** | Skills obtained at the end of the EP should be clearly defined, explained and should correspond to a certain level of the NSQ. | | + | | |

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| **6.** | EP management should determine the impact of disciplines and professional practices on the formation of learning outcomes. | | + | | |
| **7.** | An important factor is the possibility of preparing students for professional certification. | | | + | |
| **8.** | EP management must provide evidence of students' participation, faculty and other stakeholders in the development of EP, ensuring their quality. | | + | | |
| **9.** | The complexity of the EP should be clearly defined in Kazakhstan credits and ECTS. | + | | | |
| **10.** | EP management must provide the content of academic disciplines and learning outcomes to the level of education (bachelor, master, doctorate). | | + | | |
| **11.** | EP structure should provide for various activities corresponding to the learning outcomes. | | + | | |
| **12.** | An important factor is the presence of joint EPs with foreign educational organizations. | | | + | |
| **Total according to the standard** | | **4** | **6** | **2** | |
| **According to the standard "Continuous monitoring and periodic evaluation of educational programs** | | | | | |
| **1.** | The university should run monitoring and periodically evaluate the EP in order to achieve the goal and meet the needs of students and society. The results of these processes are aimed at continuous improvement of EP. | | + | | |
| | Monitoring and periodic evaluation of the EP should consider: | | | | |
| **2.** | content of programs in the light of the latest achievements of science in a particular discipline to ensure the relevance of the discipline taught; | | + | | |
| **3.** | changing in needs of society and the professional environment; | | + | | |
| **4.** | load, achievement and graduation of students; | + | | | |
| **5.** | effectiveness of student assessment procedures; | + | | | |
| **6.** | expectations, needs and satisfaction of students with training by EP; | | + | | |
| **7.** | educational environment and support services and their compliance with the objectives of the | | + | | |

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| | EP. | | | | |
| **8.** | The university and EP management must provide evidence of the participation of students, employers and other stakeholders in the revision of the EP. | | + | | |
| **9.** | All interested people should be informed of any actions planned or taken in relation to the EP. All changes made to the OP should be published. | | + | | |
| **10.** | EP management should ensure a review of the content and structure of the EP, considering changes in the labor market, employers' requirements and the social demands of society. | | + | | |
| **Total according to the standard** | | **2** | **8** | | |
| **According to the standard "Student-centered learning, teaching and educational assessment"** | | | | | |
| **1.** | EP management must ensure respect and attention to various groups of students and their needs, providing them with flexible learning ways. | | + | | |
| **2.** | EP management should ensure the use of various forms and methods of teaching and learning. | + | | | |
| **3.** | An important factor is the availability of own research in the field of teaching methods of academic disciplines. | | | + | |
| **4.** | EP management must demonstrate the presence of a feedback system on the use of various teaching methods and evaluation of learning outcomes. | | + | | |
| **5.** | EP management must demonstrate support for the autonomy of the students, with simultaneous guidance and assistance from the teacher. | | + | | |
| **6.** | EP management must demonstrate the availability of a procedure for responding to student complaints. | | + | | |
| **7.** | The university should ensure consistency, transparency and moderation of the mechanism for assessing the results of training for each EP, including the appeal. | | + | | |
| **8.** | The university must ensure that the procedures for evaluating the results of teaching students of the EP correspond to the planned learning | | + | | |

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| | outcomes and the objectives of the program. Criteria and assessment methods in the framework of the EP should be published in advance. | | | | |
| **9.** | In the university, mechanisms should be defined to ensure that each graduate of the EP obtained learning outcomes and ensure the completeness of their formation. | + | | | |
| **10.** | Assessors should possess modern methods of assessing learning outcomes and regularly improve their skills in this area. | + | | | |
| **Total according to the standard** | | **3** | **6** | **1** | |
| **According to the standard "Students"** | | | | | |
| **1.** | The university should demonstrate the policy of forming a training load from admission to graduation and ensure transparency of its procedures. The procedures governing the study cycle of students (from admission to completion) must be defined, approved, published. | + | | | |
| **2.** | EP management must demonstrate the implementation of special adaptation and support programs for new and foreign students. | | + | | |
| **3.** | The university must demonstrate the compliance of its actions with Lisbon Convention. | + | | | |
| **4.** | The university should cooperate with other educational organizations and national centers of the "European Network of National Information Centers for Academic Recognition and Mobility / National Academic Information Recognition Centers of recognition" ENIC / NARIC in order to ensure comparable recognition of qualifications. | + | | | |
| **5.** | EP management must demonstrate the presence and application of a mechanism to recognize the results of academic mobility of students, as well as the results of additional, formal and non-formal education. | + | | | |
| **6.** | The university should provide an opportunity for external and internal mobility of students of EP, as well as assist them in obtaining external grants for training. | | | + | |

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| **7.** | EP management should make best efforts to provide students with places of practice, to facilitate the employment of graduates, to keep in touch with them. | | + | | |
| **8.** | The university must provide graduates of the EP with documents confirming their qualifications, including the achieved learning outcomes, as well as the context, content and status of the education received and evidence of its completion. | | + | | |
| **9.** | An important factor is the monitoring of employment and professional activities of graduates of EP. | | + | | |
| **10.** | EP management should actively encourage students to self-education and development beyond the main program (extracurricular activities). | + | | | |
| **11.** | An important factor is the existence of a valid alumni association / association. | + | | | |
| **12.** | An important factor is the availability of support mechanism for gifted students. | | + | | |
| **Total according to the standard** | | **6** | **5** | **1** | |
| **According to the standard "Teaching Staff"** | | | | | |
| **1.** | The university must have an objective and transparent personnel policy, including recruitment, professional growth and staff development, ensuring the professional competence of the whole staff. | | + | | |
| **2.** | The university should demonstrate the compliance of the staff potential of the faculty with the development strategy of the university and the specifics of the EP. | | + | | |
| **3.** | EP management must demonstrate awareness of responsibility for their employees and ensure favorable working conditions for them. | + | | | |
| **4.** | EP management should demonstrate a change in the role of a teacher as regards the transition to student-centered learning. | | + | | |
| **5.** | The university should determine the contribution of teaching staff to the implementation of the university's development strategy, and other strategic documents. | | + | | |

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| **6.** | The university should provide opportunities for career growth and professional development of teaching staff. | + | | | |
| **7.** | EP management should involve practitioners from relevant fields in teaching. | + | | | |
| **8.** | EP management should provide targeted actions for the development of young teachers. | + | | | |
| **9.** | The university should demonstrate motivation of professional and personal development of teachers of EP, including the promotion of both the integration of scientific activities and education, and the use of innovative teaching methods. | + | | | |
| **10.** | An important factor is the active use of information and communication technologies in the educational process (for example, on-line training, e-portfolio, MOOC, etc.) by the teachers staff. | | | + | |
| **11.** | An important factor is the development of academic mobility in the framework of the EP, attracting the best foreign and domestic teachers. | | | + | |
| **12.** | An important factor is the involvement of teaching staff of EP in the community life (the role of teaching staff in the education system, in the development of science, the region, creating a cultural environment, participation in exhibitions, creative competitions, charity programs, etc.). | + | | | |
| **Total according to the standard** | | **6** | **4** | **2** | |
| **According to the standard "Educational resources and support systems for students"** | | | | | |
| 1. | EP management must demonstrate the adequacy of materials and equipment and infrastructure. | | + | | |
| 2. | EP management must demonstrate the availability of procedures to support various groups of students, including information sharing and counseling. | | + | | |
| | EP management must demonstrate the compliance of information resources with the specifics of the EP, including compliance with: | | | | |
| 3. | technological support for students and teaching staff in accordance with educational programs | | | + | |

| | | | | | |
|---|---|---|---|---|---|
| | (for example, online training, modeling, databases, data analysis programs); | | | | |
| 4. | library resources, including the books of educational, methodical and scientific literature on general educational, basic and major disciplines on paper and electronic media, periodicals, access to scientific databases; | | + | | |
| 5. | plagiarism check of research results, thesis works, dissertations; | | | + | |
| 6. | WI-FI functioning on the territory of education organization. | | + | | |
| 7. | The university should strive to ensure that the educational equipment and software used for the mastering the EP, are similar to those used in the respective industries. | | | + | |
| 8. | The university must ensure compliance with safety requirements in the learning process. | | + | | |
| 9. | The university should strive to take into account the needs of various groups of students in the context of EP (adults, workers, foreign students, and students with disabilities). | | + | | |
| **Total according to the standard** | | | **6** | **3** | |
| **According to the standard "Public Information"** | | | | | |
| | The information published by the university in the framework of the EP should be accurate, objective, relevant and should include: | | | | |
| 1. | implemented programs, indicating the expected learning outcomes; | + | | | |
| 2. | information about the possibility of assigning qualifications at the end of the EP; | + | | | |
| 3. | information about teaching, learning, assessment procedures; | + | | | |
| 4. | information about the scores and training opportunities provided by students; | + | | | |
| 5. | information about graduate employment opportunities. | | + | | |
| 6. | EP management should use a variety of ways to | | + | | |

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| | share information (including the media, web resources, other information networks) to inform the general public and interested parties. | | | | |
| 7. | Public awareness should include support and clarification of national development programs of the country and the system of higher and postgraduate education. | | + | | |
| 8. | The university must publish audited financial statements on its own web resource. | | + | | |
| 9. | The university should demonstrate the information on the web resource describing the university as a whole and in the context of the EP. | + | | | |
| 10. | An important factor is the availability of adequate and objective information about the teaching staff of the EP, in the context of individual bibliographies. | + | | | |
| 11. | An important factor is informing the public about cooperation and interaction with partners in the framework of EP, including with scientific / consulting organizations, business partners, social partners and educational organizations. | | | + | |
| 12. | The university should post information and links to external resources on the results of external assessment procedures. | + | | | |
| 13. | An important factor is the participation of the university and the EP implemented in a variety of external assessment procedures. | | + | | |
| **Total according to the standard** | | **7** | **5** | **1** | |
| **Standards in the context of individual specialties** | | | | | |
| **AGRICULTURAL SCIENCE:** | | | | | |
| | **Educational programs in areas of Soil Science and Agrochemistry, must meet the following requirements:** | | | | |
| 1. | In order to familiarize students with the professional environment and topical issues in the field of specialization, as well as to acquire skills based on theoretical training, the education | | + | | |

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| | program should include disciplines and activities aimed at gaining practical experience and skills in the specialty in general and major disciplines in particular, including:<br>- excursions to enterprises in the field of specialization (factories, workshops, research institutes, laboratories, educational and experimental farms, etc.),<br>- conductimg lessons or even teaching course disciplines disciplines at the enterprise of specialization,<br>- organizing seminars to solve practical tasks that are relevant for enterprises in the field of specialization, etc. | | | | |
| 2. | Teaching staff, involved in the education program, should include full-time teachers with long-term experience as a staff member in enterprises in the field of specialization of the education program. | | + | | |
| 3. | The content of all disciplines of the EP should be based in one way or another and include a clear relationship with the content of the fundamental natural sciences, such as Mathematics, Chemistry, Physics. | | + | | |
| 4. | EP management should provide measures to enhance practical training in the field of specialization. | | | + | |
| 5. | EP management should provide training for students in the application of modern information technologies. | | + | | |
| **Total according to the standard** | | | **4** | **1** | |
| **TOTAL** | | **40** | **64** | **13** | |