



«АККРЕДИТТЕУ ЖӘНЕ РЕЙТИНГТИҢ
ТӘУЕЛСІЗ АГЕНТТІГІ» КЕМ

НУ «НЕЗАВИСИМОЕ АГЕНТСТВО
АККРЕДИТАЦИИ И РЕЙТИНГА»

INDEPENDENT AGENCY FOR
ACCREDITATION AND RATING

REPORT

**on the results of the work of the external expert commission for
evaluation for compliance with the requirements of the standards of
specialized accreditation of educational programs**

**5B060800 - Ecology, 5B060200 - Informatics,
6M100200 - Information Security Systems**

**Kazakh National Technical Research
University named after K.I. Satpayev
SITE VISIT DATES: from «04» to «06» June 2018**

***Independent Agency for Accreditation and Rating
External expert committee***

***Addressed to
Accreditation
Council of IAAR***



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Almaty

«06» June 2018

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(I) LIST OF NOTATIONS AND ABBREVIATIONS

AIS	Automated Information System
BD	Basic disciplines
EEC IAAR	External Expert Commission of the Independent Accreditation and Agency Rating
IRD	Internal regulatory documents
EAEA	External assessment of educational achievement
SAC	State Attestation Commission
SRAOHE RK	Standard Rules of the Activity of Organizations of Higher Education of the Republic of Kazakhstan
UNT	Unified national testing
IET	Individual educational trajectory
IOS	International Organization for Standardization
IC	Individual curriculum
IAC	Institute of Architecture and Construction
MMI	Mining and Metallurgical Institute
CYA	Committee on Youth Affairs
CCSESMES RK	Committee for Control in the Sphere of Education and Science of the Ministry of Education and Science of the Republic of Kazakhstan
CED	Catalog of elective disciplines
MES RK	Ministry of Education and Science of the Republic of Kazakhstan
MOP	Modular educational program
RL	Research Laboratory
RW	Research work
SRW	Student's research work
SMC	Scientific and methodical council
GED	General educational disciplines
ED	Educational program
SD	Specialized disciplines
WC	Working curriculum
QMS	Quality Management System
JEP	Joint educational programs
IWST	Independent work of the student with the teacher
IWS	Independent work of the student
IWS	Independent work of the student
SCT	Student-centered training
SC	Sample curriculum
UNIVERSITY	NAO «Kazakh National Research University of Technical Sciences named after K.I. Satpayev»
EMCD	Educational-methodical complex of discipline
EMC	Educational-methodical complex
AC	Academic Council
EEMC	Electronic educational-methodical complex
ECTS	European Credit Transfer and Accumulation System
GPA	Grade Point Average
SWOT	SWOT-analysis - strategic planning technique to identify the Strengths, Weaknesses, Opportunities, and Threats

(II) INTRODUCTION

In accordance with Order No. 59-18-OD of May 17, 2013, the Independent Accreditation and Rating Agency, from May 4 to June 06, 2018, an external expert commission assessed the compliance of the Kazakh National Research Technical University named after KI. Satpayev standards of specialized accreditation IAAR (from "24" February 2017 No. 10-17-OD, fifth edition).

The report of the external expert commission (EEC) contains an assessment of the conformity of the activities of the Kazakh National Research Technical University named after KI. Satpayev within the framework of specialized accreditation of the criteria of the IAAR, recommendations of the EEC on further improvement of the parameters of the specialized profile.

EEC members:

1. **Committee chairman** - Akybaeva Gulvira Sovetbekovna, Ph.D., Associate Professor, Karaganda State University named after E.A. Buketov (Karaganda);
2. **Foreign expert** - Dimitar Grekov (Dimitar Grekov), a member of the Accreditation Council of the National Evaluation and Accreditation Agency Professor Agricultural University (Plovdiv, Bulgaria);
3. **Expert** - Zakirov Dilnara Ikramhanovna, Dr. PhD, «Turan» University (Almaty);
4. **Expert** - Ualhanov Bayzhan Nurbaevich, k.teh.n., Associate Professor, General Director of LLP "Kokshetau experimental production facilities" (Kokshetau);
5. **Expert**- Ryvkina Natalia V., Eurasian National University. LNgumileva (Astana);
6. **Expert** - Pak Dmitry, k.teh.n., Associate Professor, Karaganda State Technical University (Karaganda);
7. **Expert**- Ismayilova Guzal Amytovna, Dr. PhD, Kazakh National University. Al-Farabi Kazakh National University (Almaty);
8. **Expert**- Zhuparhan Bakhytgul Zhuparhankyzy, Dr. PhD, Kazakh Agro Technical University. Seyfullin (Astana);
9. **Expert**- Khamraev Sheripidin Itahunovich, k.teh.n., Associate Professor, Kazakh National Pedagogical University. Abay (Almaty);
10. **Expert** - Aldungarova Alia Kayratovna, Dr. PhD, Associate Professor, Pavlodar State University named after S. Toraigyrov (Pavlodar);
11. **Employer** - Beklemishev Pavel Antonov, Deputy Chairman of the Committee of engineering and metalworking SPE RK "Atameken", member of the Regional Chamber of Business Council of Almaty;
12. **Student** - Amanbek Asem Nyrfalikyzy student Kazakhstan Engineering and Technological University (Almaty);
13. **Student** - Tokburina Aisulu Kalasovna, a student of the Kazakh State Women's Pedagogical University (Almaty);
14. **Student** - Medetov Batyrkhan Ergazievich, a student of Almaty University of Energy and Communications (Almaty);
15. **Observer** - Timur Kanapyanov Erbolatovich, head of international projects and communication with the public IAAR(Astana)

(III) PRESENTATION OF THE ORGANIZATION OF EDUCATION

Kazakh National Research Technical University named after K.I. Satpayev is one of the oldest educational institutions in the Republic of Kazakhstan. History of the University. K.I. Satpayev - the flagship of the engineering education of the Republic - is inextricably linked with the history of our state, its culture and the system of higher education.

The oldest and one of the most prestigious technical universities in Kazakhstan, known for developments in the field of mining and oil business. For more than 80 years, this university has been synonymous with technological progress and leadership in Kazakhstan. And although in the visiting card the Kazakh National Research Technical University named after K.I. Satpayev is dominated by technical specialties, this is a versatile university, where one can also study architecture and management.

It was founded in 1934 as the Kazakh Mining and Metallurgical Institute; in 1960 it was reorganized into the Kazakh Polytechnic Institute; awarded the Order of the Red Banner of Labor; in 1999 the university was named after Academician K.I. Satpayev.

The University became the base for providing engineering personnel to the industry of the Republic and one of the main sources of cadres for scientific, state and public figures of Kazakhstan. His history is connected with the names of such famous scientists and cultural figures as Omirkhan Baikonurov, Kanysh Satpayev, Zhamal Kanlybayeva, Ilyas Esenberlin, Kazbek Valiyev, Shahmardan Yesenov, Akzhan al-Mashani, Bakhyt Sultanov, Askar Zhumagaliyev, Beibut Atamkulov.

In 1960 KazGMI was renamed into KazPTI - Kazakh Polytechnic Institute. In 1967, the vocal-instrumental ensemble "Dos-Mukasan" was organized at the Faculty of Automation and Computer Science. In January 1980, the Architectural and Construction Institute was opened in Almaty, the basis of which was the architectural and engineering faculty of KazPTI, as well as the Alma-Ata branch of the All-Union Correspondence Engineering and Construction Institute.

In 2001, by the Decree of the President of the Republic of Kazakhstan N.A. Nazarbayev is given a special status to the university.

As part of the transformation of higher education in Kazakhstan in 2014, the University named after K.I. Satpayev was awarded the category "National Research University", which made it possible to work with outstanding scientists of the world. The university cooperates with 174 leading universities from 25 countries (including the USA, England, Germany, Italy, France, China, Korea, Poland).

Implementation of the principle of "learning through research" is the main task of the Kazakh National Research University named after K.I. Satpayev. The University conducts extensive scientific work, monitoring and analysis of domestic and world trends in the development of science in the specialized fields of the university, and searches for sources of funding for fundamental and applied research in specialized scientific and educational areas. Kazakh National Research Technical University named after K.I. Satpayev conducts contract research with such well-known private and state enterprises as Kazzinc, Kazchrome, PetroKazakhstan Kumkol Resources, Toppa Su, Kazatomprom, Parasat, and Pavlodar Petrochemical Plant.

In addition to the 8 scientific research institutes working in the university, the Kazakh National Research Technical University named after K.I. Satpayev has a rich research infrastructure. Most of the research work of the university is conducted on the basis of the Technopolis Polytech Technopark, which was awarded the official National certificate and a commemorative medal with gold covering "Leader of Kazakhstan".

In the research infrastructure of the Kazakh National Research University named after K.I. Satpayev also includes 5 research laboratories that study a wide range of topical scientific problems in areas ranging from architecture to biotechnology for mining, namely: the

Architecture Laboratory, the Engineering Profile Laboratory, the Innovative Geological and Mineralogical Laboratory, the National Scientific Laboratory for the Collective Use of Information and Space Technologies, Research Laboratory of Biogeotechnology of gold, uranium and polymetallic ores. On the basis of the National Scientific Laboratory for the Collective Use of Information and Space Technologies, created on the initiative of the President of the Republic of Kazakhstan, a unique complex of computing clusters - Supercomputer with a peak performance of 10.9 TFLOPS - was launched.

The university possesses a unique material and technical base, with the help of which it can produce almost any product in a short time in a single copy on the instructions of the customer. The production is deployed on the basis of the scientific lab Fab lab, which has the largest center of 3D plastic printing (ABS) in Kazakhstan, a 5-axis milling machine with the latest software control and equipment that completely covers the entire production cycle of electronic cards.

The interaction between teaching, research and training, and between the business community and the university in the Quality Assurance Policy play a key role, and it has intensified due to the university's transition to research status. The University took responsibility for the effective functioning of the university management system (<http://kaznitu.kz/ru/about/internal-regulations/certifications>) based on the requirements of the ISO Quality Management Standards ISO 9001: 2015, ENQA Standards and Directives, own standards, as a guarantee of the quality of the university's activities. The main goal is to guarantee the quality of educational activity by meeting the requirements of consumers.

The policy of the KazNRTU named after KISatpayev (<http://kaznitu.kz/ru/about/internal-regulations/1level>) is today focused on improving the corporate culture and preserving values. The university adopted and approved the main regulatory documents that define the Policy in the field of quality assurance culture: the University Charter, the Internal Regulations, the Code of Corporate Culture of the faculty and students of the KazNITI named after KISatpayev. Corporate culture is the decisive factor determining the effectiveness of the University.

Confirmation of the development of a culture of quality assurance at the university is the success in achieving target quality assurance indicators, the results of external evaluations:

KazNIIT named after K.I. Satpayev was the first in Kazakhstan to pass and re-confirm the International Institutional Assessment in the European Association of Universities (EUA) for the International Evaluation Program (IEP, 2014);

- in November 2015, the university passed a national institutional assessment in the accreditation agency of NCOCO (Kazakhstan);
- accredited educational programs in international and national accreditation agencies: ASIIN (Germany) - 18 specialties; NKAO - 48 specialties; IAAR - 33 specialties;
- KazNRTU named after K.Satpayev takes the 1st place in the rating of Kazakhstan universities on academic indicators of training specialists among technical universities, is the leader in technical sciences and technologies according to the results of the rating of educational programs of universities held by the NAC RK (now the Center of the Bologna Process and the academic period from 2011 and 2015);
- In the international ranking of universities QS World University Rankings - 2017 took the position 411- 420 among the Top 800 best universities in the world, improving the indicator of 2016 for 100 positions. In the ranking of QS University Rankings "Developing Europe and Central Asia" 2016-2017gg. KazNITI entered the Top 100, taking 50th place;
- According to the estimation of the international rating agency Webometrics Ranking of World Universities, KazNRTU became the leader among Kazakhstani universities, taking first place;

– in 2017, the quality management system passed the procedure of recertification and confirmed the double QMS certificate for compliance with the international standard ISO 9001: 2015 for No. 17.1747.026 dated November 15, 2017 from the Association for Certification "Russian Register" and the International Network of Certification Agencies "IQNet".

The quality assurance policy applies to those activities that are performed by contractors and partners. At the university, outsourced services are transferred to certain functions performed by external organizations: provision of energy resources, servicing of individual equipment, banking services for cash and settlement services, medical services, personnel training, inspections by control and supervision authorities, product certification services, accreditation and certification of testing laboratories, accreditation of educational programs.

The management of outsourcing processes and the requirements for them are fixed in the Quality Manual, the KazNRTU DP Informational and Telecommunication Service, the KazNRTU DP Department of Public Procurement Management and others (<http://kaznitu.kz/ru/about/internal-regulations/2level / documented-procedures>).

The University systematically analyzes the state and perspective development of industrial branches of the Republic of Kazakhstan, the annual Addresses of the President of the country NA. Nazarbayev to the people of Kazakhstan with the aim of adjusting the content of the OP and matching the training of specialists to the labor market requirements. This analysis is carried out by profiling chairs, educational institutes and relevant departments of the university.

The results of the analysis are used to develop proposals for strategic planning for the development of institutions, departments and the university as a whole.

(IV) DESCRIPTION OF EEC VISIT

Information about the colleagues and students, participated in meetings with EEC IAAR

Member category	Number
Rector	1
Vice-rector	6
Directors of Institutes	13
Heads of Departments	10
Directors of departments and heads of departments	5
Teaching staff	54
Students, Masters, PhD students	76
Graduates	45
Employers	34
Total	244

During the tour, the members of the EEC got acquainted with the state of the material and technical base, visited the KazNRTU museum named after K.I. Satpayev, the Mineralogical Museum, the Scientific Library, the training ground of the Mining and Metallurgical Institute, the Registrar's Office, the FabLab Research and Production Division, the Master's and Doctoral Students' House, the Military Institute, the National Scientific Laboratory of the Information and Space Technologies Collective Use, the Engineering Profile Laboratory, the Laboratory "Innovative Geospatial Technologies in Geodesy, Cartography and Mine Surveying", Laboratory of Theory of Metallurgical Processes, Pyrometallurgical Laboratory the Laboratory for Metallurgy of Light and Rare Metals, the

Laboratory "Quantum Physics", the Laboratory of thin-film technologies, the Kaspersky Lab and network technologies, the laboratory for circuit engineering.

The events planned within the framework of the visit of the EEC IAAR facilitated detailed familiarization of experts with the university's educational infrastructure, material and technical resources, faculty, representatives of employers' organizations, students and graduates. This allowed the EEC IAAR members to conduct an independent assessment of the compliance of the data set out in the self-assessment reports of the university's educational programs with the criteria of the specialized accreditation standards of the IAAR.

Within the framework of the planned program, recommendations on improving the University's activities developed by the EEC on the results of the examination were presented at a meeting with the management on June 6, 2018.

EEC members attended open classes on accredited educational programs:

According to OP 6M10020 "Information security systems (1 course), discipline" Architecture of security systems for database servers ", lecturer Aitkhozhaeva E.Zh. - associate professor of the department " Information security ", the topic of the lesson " Designing secure databases "(corresponds to the syllabus).

The lesson dealt with the design of secure databases taking into account the characteristics of information security. The stages of design, infologic and datalogical designing are considered. The ER-method of design is presented with an illustration on ER-diagrams. The CASE-tools for DB design (Erwin Data Modeler, Power Designer, Oracle SQL Developer Data Modeler) with the illustration of their interfaces are considered.

The lecture was conducted using a complex teaching method (interactive whiteboard, presentation + traditional method (description of schemes and graphs on the board)).

The experts visited the base of production practices of students of accredited OPs, namely the Center for Information Technologies, RSE for PHC "Kazhydromet".

(V) CONFORMING TO THE SPECIALIZED ACCREDITATION STANDARDS

5.1. Standard "Management of the educational program"

- ✓ *The university should have a published quality assurance policy.*
- ✓ *The quality assurance policy should reflect the relationship between research, teaching and learning.*
- ✓ *The university should demonstrate the development of a culture of quality assurance, including in the context of the program.*
 - ✓ *Commitment to quality assurance should apply to any activities performed by contractors and partners (outsourcing), including in the implementation of joint / two-degree education and academic mobility.*
 - ✓ *The management of the program provides transparency in the development of an OP development plan based on an analysis of its functioning, the actual positioning of the institution and the focus of its activities on meeting the needs of the state, employers, stakeholders and students.*
 - ✓ *The management of the program demonstrates the functioning of the mechanisms for the formation and regular revision of the program development plan and monitoring of its implementation, assessing the achievement of the training objectives, meeting the needs of students, employers and society, making decisions aimed at the continuous improvement of the program.*
 - ✓ *The management of the program should involve representatives of stakeholder groups, including employers, trainees and teaching staff, in forming a program development plan.*
 - ✓ *The management of the program should demonstrate the individuality and uniqueness of the program development plan, its coherence with the national development priorities and the development strategy of the education organization.*
 - ✓ *The university should demonstrate a clear definition of those responsible for business processes within the framework of the program, unambiguous distribution of the duties of the staff, delineation of the functions of collegial bodies.*
 - ✓ *The management of the program must provide evidence of the transparency of the management system of the educational program.*

- ✓ *The management of the program should demonstrate the successful functioning of the internal quality assurance system of the program, including its design, management and monitoring, their improvement, decision-making on the basis of facts.*
- ✓ *The management of the program should implement risk management.*
- ✓ *The management of the program should ensure the participation of representatives of interested persons (employers, teaching staff, students) in the collegial bodies of management of the educational program, as well as their representativeness in making decisions on the management of the educational program.*
- ✓ *The university should demonstrate the management of innovation within the framework of the program, including the analysis and implementation of innovative proposals.*
- ✓ *The management of the program should demonstrate evidence of openness and accessibility for students, PPP, employers and other stakeholders.*
- ✓ *The management of the program must receive training in educational management programs.*
- ✓ *The program management should aim to ensure that the progress achieved since the last external quality assurance procedure is taken into account when preparing for the next procedure.*

The Evidence

Satbayev University has published the Quality Assurance Policy. Policies and Objectives in the field of quality are posted on the University's website (<http://kaznitu.kz/ru/about/internal-regulations/1level>), stands of departments and institutes, in the library, in the offices of the heads of structural divisions of the University.

The University pursues a policy of integrating the educational process and research activities, developing students through research and development and developing their professional competence through the use of their own scientific results in training on educational programs agreed with employers, strategic partners of the department; development of educational programs and technologies, taking into account the priority areas of science and technology.

The quality management system in the KazNRTU was developed and implemented in accordance with the international standard ISO 9001: 2015. The university has a system of monitoring the quality of education, as a result of which an internal corporate management environment has been created that allows the faculty to be fully involved in the process of achieving the goals for the quality of education. The university adopted and approved the main regulatory documents that define the Policy in the field of quality culture: the University Charter, the Internal Regulations, the Code of Corporate Culture, the Code of Corporate Ethics (<http://kaznitu.kz/ru/about/internal-regulations/3level/cmku>).

The University strives to ensure the implementation of all the ideas and principles underlying the construction of the Single European Educational and Scientific Space, to the improvement of the quality culture. To achieve this goal, the infrastructure develops, the development and improvement of educational and methodological documentation is strengthened, the expertise of the MNP is increased, taking into account the competence approach, new contracts are concluded to ensure academic mobility, conditions are created for upgrading the qualifications of the teaching staff.

The implementation and development of the programs under consideration is determined, first of all, by the mission, vision, strategy of the university development, and also by the Development plans for educational programs.

The effectiveness of the development plan for the program is ensured by the responsibility of teaching staff for the final results, the delegation and delineation of powers, and the posting of information on the university's website.

To manage the educational program, all the necessary information, personnel, financial and logistical resources are available, as well as regulatory and legal documentation that ensure the implementation of educational programs.

At the meetings of the Academic Council of the University and institutes, the EMC of the university routinely hear questions about the implementation of the development plans for the program, the results of the implementation of the planned activities.

Reports on the implementation of development plans are included in the annual reports

of the departments, institutes, universities with critical analysis.

Reports are reviewed and approved at meetings of departments, academic councils of institutes and universities, EMC of the University. The results of the evaluation of the effectiveness of the implementation stages of the development phase are used to adjust the development activities of the departments, institutes and universities for the next academic year and are included in the work plan.

The plans for the development of the EP are adjusted annually. Monitoring of the implementation of the development plan for the EP is handled by the directorates of institutions and supervising departments of the university. Monitoring of the implementation plan development plan is considered at the sessions of the departments "Biotechnology", "Information Security", "Computer and Software Engineering".

Analytical part

The management of the program does not fully ensure the participation of representatives of stakeholders in the collegial bodies of management of the educational program and its development, as revealed by interviews with teachers and employers.

Analysis of the site of the university showed that not fully the data on educational programs posted on the site in the public domain.

The EEC members also note that there is no practice of creating joint programs or their harmonization, which would promote the development of academic mobility.

There are data on the internal quality assurance system of the program, including its design, management and monitoring, and their improvement. At the same time, the university needs to systematically devote to the management of innovation within the framework of the program, which will contribute to the uniqueness of the data of the accredited EP.

Strengths / best practice

- The university has developed and published policy on the quality of educational activities, which provides a connection between research, teaching and learning

EEC recommendations

1. To include in the work plan of the department the issue of developing joint educational programs with foreign educational organizations, with the inclusion of items:

- the inclusion of disciplines that have a research direction in the CED of joint educational programs;
- implementation of programs of external academic mobility of students and teaching staff;
- implementation of two-diploma education programs.

1. By the beginning of the new 2018/19 school year, draw up a plan and organize introductory courses for managers of the program on planning the results of training, organizing the educational process for educational programs in accordance with the CTT and implementing the basic principles of the Bologna process.

2. To improve the mechanisms of design, management, internal quality assessment, expertise and monitoring of accredited program taking into account risks.

Conclusions of the EEC on the criteria: strong-2, satisfactory-12, suggest improvements-3.

5.2. Standard "Information management and reporting"

- ✓ *The University should ensure the functioning of the system of collection, analysis and management of information through the use of modern information and communication technologies and software.*
- ✓ *EP leadership must demonstrate the system using the processed, adequate information for improving the internal quality assurance system.*
- ✓ *There should be a system of regular reporting within the EP, reflecting all levels of the structure, including the assessment of the effectiveness and efficiency of departments and departments, scientific research.*
- ✓ *The University should establish the frequency, forms and methods of evaluation of the management of the EP, the activities of collegial bodies and structural units, senior management, implementation of scientific projects.*
- ✓ *The University must demonstrate the definition of the procedure and ensure the protection of information, including the identification of those responsible for the accuracy and timeliness of information analysis and data provision.*
- ✓ *An important factor is the involvement of students, employees and staff in the process of collection and analysis of information, as well as decision-making based on them.*
- ✓ *The leadership of the EP should demonstrate that there is a communication mechanism with learners, employees and other stakeholders, including conflict resolution mechanisms.*
- ✓ *The University shall be provided to measure the degree of satisfaction of needs of faculty, staff and students within the framework of EP and demonstrate evidence of elimination of the found shortcomings.*
- ✓ *The University should assess the effectiveness and efficiency of activities, including in the context of the EP.*
- ✓ *Information collected and analysed by the University in the framework of the EP should consider:*
 - *key performance indicator;*
 - *the dynamics of the contingent of students in the context of forms and types;*
 - *academic performance, student achievement and graduation;*
 - *satisfaction of students with the implementation of EP and the quality of education at the University;*
 - *availability of educational resources and support systems for students;*
 - *employment and career development of graduates.*
- ✓ *Students, employees and faculty must document their consent to the processing of personal data.*
- ✓ *The guidebook of the EP should help to provide all the necessary information in the relevant fields of science.*

Evidence part

The General information part of the site contains information about the University, its departments, events taking place within its walls. Information in this section is aimed at a wide audience: students, staff, teachers, students and their parents, employers, University partners, scientific and public organizations. The official website of the University is presented in 3 languages.

The University has a single automated information system, which provides complete information about the learning process of each student for the entire period. Records are kept of progress in all subjects, GPA, placed orders, announcements. Information on each student and teacher with search system, reports on various criteria is presented.

The University constantly maintains contacts with its students and graduates. This work is carried out by the Registrar's office and the Department with the assistance of the Directorate. Communication with graduates is carried out through negotiations, correspondence, meetings and e-mail.

According to the results of the survey, a number of indicators are analyzed, such as satisfaction: the results of the EP, the Department and individual teachers, relations with the University administration, heads of institutions. On the basis of the information of the Department, institutes, University, contribute to its activity adjustments, to achieve the improvement of educational processes. The results of the survey are considered and discussed at the educational and methodical Council, the academic Council of the University, at meetings of departments.

Collective bodies are involved in the evaluation of the EP. The analysis is carried out through internal audits, examination of methodological support, evaluation of activities and consideration of issues at meetings of collegial management bodies – meeting of the

Department, methodological sections of the Department and methodical commissions of the Institute, the Institute Council, Scientific and methodical Council, the Academic Council of the University.

Within the framework of these mechanisms, the effectiveness and efficiency of the implementation of goals and objectives are determined, deviations from the set goals are identified. If necessary, corrective action plans are developed.

Recommendations EEC

1. Increase the number of credits for the study of the discipline "Environmental and regulatory documentation in the enterprise" for students of the EP "Ecology".

Conclusions of the EEC on the criteria: strong-4, satisfactory-13.

5.3. Standard "Development and approval of educational program"

✓The University should define and document procedures for developing and approving the EP at the institutional level.

✓The EP manual should ensure designed EP objectives, including expected learning outcomes.

✓The EP guide should ensure that the developed models of the EP graduate describe learning outcomes and personal qualities.

✓EP leadership must demonstrate the conduct of external examinations EP.

✓Qualifications obtained at the end of the EP should be clearly defined, explained and consistent with a certain level of NSC.

✓Guide EP should determine the influence of the disciplines and professional practices in shaping learning outcomes.

✓An important factor is the possibility of training students for professional certification.

✓The management of the EP should provide evidence of the participation of students, faculty and other stakeholders in the development of the EP, ensuring their quality.

✓The labor intensity of the EP should be clearly defined in Kazakhstan loans and ECTS.

✓The management of the EP should ensure the content of academic disciplines and learning outcomes at the level of education (bachelor, master, doctoral).

✓The structure of the EP should include different activities corresponding to learning outcomes.

✓An important factor is the presence of joint EP with foreign educational organizations.

Evidence part

In KazNRTU named after Satpayev defined and documented procedures for the quality assessment of EP. Evaluation of the quality of educational programs is carried out on the basis of analysis of curricula, catalog of elective disciplines, schedules, individual plans of students, internal regulations governing the implementation of educational programs, questionnaires of students and employers.

The implementation of educational programs and their scientific level are determined by the stated goals, consistent with the objectives of the University. The objectives of the programs are in line with the interests of consumers of educational services and sufficiently provide the expected level of professional training of graduates.

The University formed a model of graduates of the EP, in the development of the model of the graduate was attended by faculty, graduates and students of the University. Models for accredited programs include General and professional competencies and are part of the structure of the relevant modular educational programs. The methodology of development of educational programs of the new generation is based on the introduction of the European system of education and puts forward the following principles:

1. Understanding of the content of graduate education taking into account the Dublin descriptors and the requirements of the labour market.

2. Competence-based approach as a basis for the design of educational programs.

3. The modular principle of forming educational programs on the basis of the Dublin descriptors.

At the University there are the following types of curriculum: model curriculum (MC), working curriculum (WC). Curricula are developed on the basis of standard curricula for specialties for the entire period of training, State educational standards and Rules of the educational process on credit technology. In accordance with State obligatory standard of education of the Republic of Kazakhstan in the curriculum maintained the ratio of the volume of disciplines cycles of OOD, DB, majors.

The content and structure of the accredited EP are formed in accordance with the requirements of the Standard rules of higher and postgraduate education organizations, approved by the Government of the Republic of Kazakhstan dated may 17, 2013 №499, State obligatory standard of education of the Republic of Kazakhstan, approved by the Government of the Republic of Kazakhstan №1080 dated 23.08.2012, the Rules of the educational process on credit technology, approved by The order of the Minister of education and science №152 dated 20.04.2011 with relevant changes to them.

Educational programs provide for the possibility of building individual educational trajectory, taking into account personal needs and opportunities of students. The formation of individual educational trajectories takes place on the basis of State obligatory standard of education of the Republic of Kazakhstan, Model curriculum, Individual curriculum – determine an individual educational trajectory of each student separately formed for each academic year personally studying with the help of advisors.

The structure and content of modular educational programs for the entire period of training are developed by graduate departments on the basis of standard curricula, models of graduates. According to the results of the survey, 90.3% of staff believe that the work on updating educational programs is well done. According to the survey of students, 94.3% of respondents noted the clarity and structure of the courses.

Work curriculum are prepared and approved annually on the basis of the EP. Catalogues of elective disciplines (CED) are developed by the Department and approved by the educational and methodical Council of the University. The CED contains a brief description of the disciplines, indicating the prerequisites and post-requisites of the discipline. CAD is available at the departments, in the scientific library.

The Modular educational program shows a logical sequence of development cycles, disciplines, practices, final certification, defense of the thesis, providing the formation of General and special competencies. The complexity of cycle disciplines in Kazakhstan and ECTS credits, as well as in hours with the allocation of lectures, laboratory, practical (seminar) classes, independent work of students under the guidance of a teacher and independent work of a student, all types of professional practice, intermediate certification are indicated.

An important role in the training of specialists, namely in the formation of their professional competencies, is played by various types of practices provided by Module curriculum. At the end of the practice, students submit to the Department a report and a diary signed by the head of the practice base

To identify the training needs of specialists and key stakeholder requirements, departments established permanent partnerships with employers, on the basis of contracts, memoranda of the round-tables and public meetings of the departments with the participation of interested persons on the issues of forming educational programs.

Analytical part

However, the Commission notes that the following issues are not fully reflected in the self-reporting and were not confirmed during the visit of the EEC under this standard:

The content of the submitted examinations of employers does not reflect individuality, with the same text and is of a General nature.

It is not clear how the main partners of the University, typical as employers for graduates of this EP, are chosen. The representative nature of employers involved in the design and implementation of the program is not justified.

Strengths/best practice

- The presence of the developed models of the graduate, describing the results of training and personal qualities.

Recommendations of EEC

First to Consider the possibility of preparing students accredited by EP 3 cluster for professional certification.

Conclusions of the EEC on the criteria: strong-2, satisfactory-8, suggest improvements-2.

5.4. Standard “Continuous monitoring and periodic evaluation of educational programs”

✓ *The University should conduct monitoring and periodic evaluation of EP in order to achieve the goals and meet the needs of students and society. The results of these processes are aimed at continuous improvement of the EP.*

- ✓ *Monitoring and periodic evaluation of the EP should consider:*
- ✓ *Content of programs in the light of the latest scientific achievements in a particular discipline to ensure the relevance of the taught discipline;*
- ✓ *Changing the needs of society and the professional environment;*
- ✓ *Workload, academic performance and output of students;*
- ✓ *The efficiency of procedures of assessment of students;*
- ✓ *Students ' expectations, needs and satisfaction;*
- ✓ *Educational environment and support services and their relevance to the objectives of the EP.*
- ✓ *The University and the leadership of the EP should provide evidence of the participation of students, employers and other stakeholders in the revision of the EP.*
- ✓ *All stakeholders must be informed about any planned or taken actions in relation to EP. All changes made to the EP should be published.*
- ✓ *Guide EP should provide the revision of the contents and structure of the EP with the changes of the labour market, employers ' requirements and social demands of society.*

Evidence part

The University conducts systematic monitoring, evaluation of "effectiveness" and "efficiency" of the implementation of the strategy of educational programs with the participation of students, employees and other stakeholders on the basis of systematic collection, analysis and management of information. The following indicators are taken into account:

- information about the contingent of students (students, undergraduates);
- the level of performance and quality of knowledge, student achievements and statistics on student movement;
- satisfaction of consumers (society, employers, students, etc.) with the implementation of programs (sociological monitoring: questionnaire);
- availability of educational resources and student support services;
- employment of graduates;
- key strategic indicators of the University.

All activities to control the quality of the educational process, conducted at different levels, recorded in the form of records, acts, certificates, reports, etc., and are discussed at meetings of departments and educational commissions, scientific and methodical Council of the University, the Academic Council of the University. Based on the analysis and evaluation

of control indicators, measures are developed to improve the quality of the EP implementation.

Management of educational programs includes interaction with employers in the following forms: joint seminars and meetings, questionnaires of employers on the subject of current competencies of graduates, participation in the work of the SAC, the implementation of master's theses and theses.

The management of the University has demonstrated its openness and accessibility to students, faculty, employers: defined hours of reception on personal issues, on a systematic basis, meetings with the rector. Traditional feedback forms are used as a communication channel for innovative proposals: meetings with the management and the rector's blog. According to the results of the survey, 53.8% of students and 47.3% of staff are fully satisfied with the level of availability and responsiveness of the University management.

Analytical part

According to the criterion of "Monitoring and periodic evaluation of OP" subparagraphs in self-Report gives a General description, there are no specific examples of changes in EP 5B060800 "Ecology" on the results of monitoring and evaluation. Changes in elective disciplines, data of the developed new elective courses for the last 3 years in the context of the accredited EP are not presented.

The University and the guidebook of the EP in self-Report describes the procedure of participation of students, employers and other stakeholders in the revision of the EP in General. However, the EEC Commission has not provided evidence of the participation of these persons in the revision of the accredited PLO with specific proposals (names of changes, number of credits, terms, years, minutes, reviews, etc.).

The management of the EP did not provide data on the revision of the content and structure of the EP in the light of changes in the labour market, employers' requirements and the social demand of the society. The order of revision, names of documents with reflected data are not registered.

Producing students of accredited EP has been decreasing population.

Recommendations EEC

1 to Intensify the work on the annual update of educational programs, with the publication of all the changes made on the website of the University, with the involvement of all interested persons and documented.

Conclusions of the EEC on the criteria: satisfactory-10.

5.5. Standard "student-Centered learning, teaching and performance assessment"

✓ *The leadership of the EP should ensure respect for and attention to different groups of learners and their needs, providing them with flexible learning paths.*

✓ *The guidebook of the EP should ensure the use of different forms and methods of teaching and learning.*

✓ *An important factor is the availability of own research in the field of teaching methods of academic disciplines EP.*

✓ *The guidebook of the EP should demonstrate the existence of a feedback system on the use of different teaching methods and evaluation of learning outcomes.*

✓ *EP leadership must demonstrate support for the autonomy of students with simultaneous guidance and help from the teacher.*

✓ *EP leadership must demonstrate the existence of procedures for responding to complaints of students.*

✓ *The University should ensure the consistency, transparency and objectivity of the learning evaluation mechanism for each EP, including the appeal.*

✓ *The University must ensure that the procedures for assessing the learning outcomes of students on the planned learning outcomes and the objectives of the program. The criteria and methods of evaluation within the EP should be published in advance.*

✓ *In high school should be defined mechanisms to ensure the development of every graduate EP learning outcomes, and ensured the completeness of their formation.*

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

Evidence part

Ensuring equal opportunities for students is achieved by the fullness of the educational, organizational, methodological and information support of the educational process in two languages: Kazakh and Russian. For multilingual groups in 2 languages: Kazakh/Russian, Kazakh/English, Russian / English. Since teaching in a foreign language is based on the methodology of CLIL (Content and Language Integrated Learning) – with elements of English, selectively on individual topics, the sufficient educational and methodological support is the teaching material developed by the teacher (syllabus, EOR, umkd).

Students are given equal opportunities to acquire knowledge regardless of the language of study: the educational process is conducted in the state and Russian languages. Accordingly, educational and methodical work is conducted in Russian and Kazakh languages.

Students have the opportunity to form an individual educational trajectory that takes into account his personal characteristics and needs.

Information about the possibilities of formation of individual educational trajectory student receives in the first year during meetings with the adviser, heads of departments. The main role in assisting in the formation and promotion of the educational pathway is played by teachers - advisors.

The EP guide provides a variety of forms and methods of teaching and learning. For the successful development of educational programs by students, the staff of the Department introduces in the educational process innovative methods of learning in the form of business and role-playing games, simulation training, discussions, the method of "brainstorming", situational tasks, etc. Teachers practice presentations of training courses using interactive whiteboards, multimedia projectors, video lectures recording, introduction of multilingualism - teaching majors and basic disciplines in English and Kazakh/Russian (depending on the language of instruction - Russian/Kazakh).

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By departments feedback on the use of different teaching methods and evaluation of learning results is manifested in:

– results of academic performance and quality of knowledge;

- the results of the survey (satisfaction with the educational process and teaching staff);
- State exam results;
- wishes of students;
- the opinions of employers and managers practice bases.

The analysis of employers about the quality of the educational process of the departments is tracked by the analysis of questionnaires of the student-trainee. According to the results of the survey of employers, according to the results of industrial and pre-diploma practices were the following components of training:

- discipline, diligence;
- professional skills;
- level of professional knowledge;
- commitment to professional and personal growth;
- ability to find compromises, to resolve conflicts.

The following competencies were highly appreciated by the employers of the University graduates:

- discipline, diligence;
- handling skills with modern technology;
- communication skills, ability to communicate with people;
- the ability of independent decision making and obtaining of new knowledge;
- striving for professional and personal growth.

Components that make the greatest difference between importance and satisfaction: professional skills; level of professional knowledge; flexibility and mobility in professional activities. These components are the priority directions in the field of improvement of educational services.

Objective assessment of knowledge and the degree of formation of professional competence of students is achieved by:

- familiarize students with the applied evaluation criteria of knowledge and requirements
- ot the study of the discipline in accordance with the syllabus to the working curriculum of the discipline in the first lesson;
- availability of assessment criteria to students (in the syllabus and teaching materials placed in the digital library);
- the functioning of the appeals committees.

The results of the current and midterm control, as well as intermediate certification are available to students on the educational portal. Exam results are available to students 7 days after the exam.

Other information on the processes of knowledge assessment is brought to the students through the curators (advisors) and specialists of the Office Registrar.

Information about the current system of assessments in the University student receives in the first year during meetings with the Director, head of the Department, curator (adviser).

Compliance of the level of knowledge of students with the planned learning outcomes and program objectives is ensured through the content of evaluation materials, the adequacy of forms and methods of knowledge assessment.

The planned learning outcomes of the EP are published in the Modular educational program. The learning outcomes for each discipline and the evaluation criteria are published in the syllabus of the respective disciplines. Students of accredited educational programs have the opportunity to get acquainted with the Modular educational program on the website of the University, with syllabuses of disciplines – in the electronic library of the University.

The criterion for achieving the necessary results and learning the curriculum at the normative level is the average score for the transfer from course to course. The GPA grade point average in the undergraduate is defined as follows: for the first course – 1,8; for the second course – 1,8 for the third course – 2,0; for the fourth course – 2,0. The average score for the transfer from course to course in the master's degree is determined by the decision of the Academic Council and is 2.2.

Analytical part

The analysis of monitoring procedures and periodic evaluation of the EP is based on: analysis of curricula, catalog of elective disciplines, individual plans of students' programs, internal regulations governing the implementation of educational programs, their monitoring and evaluation; minutes of collegial bodies and meetings of departments; interviewing and questioning of students, faculty and stakeholders; the results of observations of the activities of support services.

However, the Commission notes that the standard does not fully address the issues of informing stakeholders of any planned or undertaken action with respect to the EP.

Strengths/best practice

- Consistency, transparency and objectivity of the learning evaluation mechanism for each EP, including appeal.

Conclusions of the EEC on the criteria: strong-1, satisfactory-9.

5.6. Standard "Students"

- ✓ *The University should demonstrate the policy of formation of the contingent of students in the context of EP from admission to graduation and ensure transparency of its procedures. The procedures governing the life cycle of students (from admission to completion) should be defined, approved, published.*
- ✓ *EP leadership must demonstrate the special adaptation programs and support for newly arrived and international students.*
- ✓ *The University must demonstrate its compliance with the Lisbon Convention on recognition.*
- ✓ *The University should cooperate with other educational institutions and national centers of the "European network of national information centers for academic recognition and mobility/national academic information centers of Recognition" ENIC/NARIC to ensure comparable recognition of qualifications.*
- ✓ *The leadership of the EP should demonstrate the existence 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.*
- ✓ *The University should provide an opportunity for external and internal mobility of students of the EP, as well as assist them in obtaining external grants for training.*
- ✓ *The management of the EP should make the maximum amount of effort to provide students with places of practice, to promote the employment of graduates, to maintain communication with them.*
- ✓ *Universities should provide graduates EP the documents confirming obtained qualifications, including achieved learning outcomes and the context, content and status of education and evidence of its completion.*
- ✓ *An important factor is the monitoring of employment and professional activities of graduates of EP.*
- ✓ *The leadership of the EP should actively encourage students to self-education and development outside the main program (extracurricular activities).*
- ✓ *An important factor is the existence of an existing Association/Association of graduates.*
- ✓ *An important factor is the availability of a support mechanism for gifted students.*

Evidence part

The University demonstrated the policy of formation of the contingent of students in the context of EP from admission to graduation and ensures transparency of its procedures. The procedures regulating the life cycle of students (from admission to completion) are defined, approved and published.

The policy of the University of formation of the contingent of students is to accept the number of students, the most prepared to study at the University, consciously chosen specialty, scored the required number of points on the results of the UNT and CT (graduates of secondary schools, colleges) on the basis of the state order (grant) and paid. The rights of citizens, provided by the Constitution of the Republic of Kazakhstan and the current legislation, are ensured during admission and admission to the University. In the process of enrollment in the number of students on a fee basis at the University observed the threshold level of passing score set by the MES. Enrollment of students is carried out on the basis of the UNT and CT on the basis of the state certificate for creative specialties on the basis of certificates of creative examinations (bachelor, at least 50 points), certificate for the delivery of a foreign language (master, at least 50/30 points) and a comprehensive examination in the specialty (master, at least 8 points), passing the pre-visa disciplines (master), certificate of the award of the state educational grant.

The University does not impose additional conditions on applicants.

The formation of the contingent of students in the undergraduate is carried out through the placement of the state educational order for training, as well as payment for training at the expense of own funds of citizens and other sources. The right to receive free University education by foreigners on a competitive basis in accordance with the state educational order is determined by international agreements of the Republic of Kazakhstan.

Admission of persons entering the KazNU is carried out on their applications on a competitive basis in accordance with the points of the certificate issued by the results of the unified national testing (UNT) or comprehensive testing of applicants.

Citizens who have received a state grant, the results of which are published in the media, are admitted to the Treasury.

The exercise of the procedures of formation of a contingent (rules of admission, transfer from course to course, from other universities, the procedure of credit transfer, studied at other universities, deductions, etc., is established documented procedures 702 "the Formation of the contingent of students (Bacalaureat) from 25.05.2017 and rules of admission to bachelor KazNTU PR 029.03-17.01.01-2017 (<http://kaznitu.kz/ru/about/internal-regulations/2level/documented-procedures>).

Issues of formation of the contingent and the results of the reception are considered at meetings of departments, faculty Council, rector. In General, the parameters for the contingent of students meet the requirements. The process of formation of the contingent of students is described in the documented procedure of DP NAO Kaznitu 702 - "formation of the contingent of students", (<http://kaznitu.kz/ru/about/internal-regulations/2level/documented-procedures>).

Table - Data of admission to the EP 5B060800 "Ecology" and 5B060200 "Informatics", 6M100200 "Information Security System"

Year	5B060800 "Ecology"		5B060200 "Informatics"		6M100200 "Information Security System»	
	Scholarship	Contract	Scholarship	Contract	Scholarship	Contract
2013-2014 study year	11	2	40	-		
2014-2015 study year	6	10	37	-		1
2015-2016 study year	2	3	52	-		3
2016-2017 study year	-	-	1	-		
2017-2018 study year	-	-	0	-	2	

Table - Amount of students in the context of accredited specialties

Study of year	Form of study	Total students	Scholarship	Contract
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			rus	kaz	rus	kaz
5B060800 - «Ecology»						
2013-2014	Full	47	8	19	8	12
2014-2015	Full	62	10	23	10	19
2015-2016	Full	57	12	28	7	10
2016-2017	Full	45	10	25	4	6
2017-2018	Full	27	7	17	1	2
5B060200 - «Informatics»						
2013-2014	Full		4	36	-	-
2014-2015	Full		8	29	-	-
2015-2016	Full		8	44	-	-
2016-2017	Full		-	1	-	-
2017-2018	Full		-	-	-	-
6M100200 - «Information Security System»						
2013-2014	Full					
2014-2015	Full	1			1	
2015-2016	Full	4			4	
2016-2017	Full	3			3	
2017-2018	Full	2				2

From the first day of his stay in KazNRTU after K.I. Satpayev for the adaptation of students are held meetings with the leadership of the EP, with the teaching staff of the graduating department, the EP advisors, during which they receive a guide-book, which reflects: the internal regulations, the mode of operation of all services, name and surname. rector's office, heads of institutes, the procedure for paying for tuition, criteria for evaluating learning outcomes, information on educational courses, telephone directory and other educational information needed for a freshman.

Provision of conditions for students - the availability of student services: dormitories, canteens, medical centers, gyms, computer centers, libraries and research centers.

In order to prevent possible problems with students on progress in progress, systematic work is being carried out at the institute's directorate, in particular monitoring progress on the results of boundary control and passing examinations, if such facts are revealed, work is done to find out the causes of the causes and eliminate their consequences.

Activities KazNRTU after K.I. Satpayev, who carries out educational activity in accordance with the state normative documents in the field of education and who has a state license and institutional accreditation in the territory of the Republic of Kazakhstan, is in compliance with the Lisbon Convention. In accordance with the requirements of the Lisbon Convention, the admission committee conducts work on the delivery of documents of persons entering the university who have documents on the formation of international and foreign educational institutions for the procedure for recognition and nostrification in the center of the Bologna process and academic mobility of the Ministry of Education and Science of the Republic of Kazakhstan. Documents confirming the passage of the procedure of nostrification are in the personal files of the students.

The university cooperates with other educational organizations and national centers and participates in the activities of the Center for the Bologna process and academic mobility, which is the Kazakhstan center "European Network of National Information Centers for Academic Recognition and Mobility", i.e. National Academic Recognition Information Center of ENIC / NARIC in order to ensure comparable recognition of qualifications. Within the framework of the organization of external and internal academic mobility of students of 3 clusters, exchange programs are implemented at the bachelor and master's level with foreign universities.

Under the academic program 6M100200-SIB, graduate student Baltabai Aliya was the first graduate in the specialty 6M100200-SIB to Peking University (China). Later, she

continued her education on a two-diploma program along the line of the USCO. In addition, the university has exchange programs with foreign universities, such as the Polytechnic Institute of Turin, the Polytechnic University of Valencia, the Riga Polytechnic Institute. 2017-2018 academic year, a master's degree in the specialty 6M100200-SIB Ədilbekzyzy Sairan was selected for the university.

Work is also being carried out to bring educational programs closer to the Russian universities (MEPhI, MIET, ITMO) and Ukraine (NAU, Odessa University named after AS Popov).

Within the framework of the program "Invitation of foreign specialists to higher educational institutions of the Republic of Kazakhstan" for the years 2014-2017, the following foreign scientists were invited to participate in educational programs of the three clusters:

EP "Ecology":

- Head. Department of Plant Physiology, Moscow State University. M.V. Lomonosov, doctor of biological sciences, professor Nosov AM, 2015;

- Head. Department of Environmental Protection of the University of Vitaut the Great (Kaunas, Lithuania) Romualdas Yuknis, Doctor of Biological Sciences, Professor, 2014;

- Professor of the University of Nova de Lisboa (Portugal, Lisbon), Consultant / Manager of National and International Projects, Leading Researcher in Chemical Engineering Lyubchik SB, 2014;

- Professor of the University College of London (University College London) Saul Porton (Saul Porton), 2016.

5B060200 - Informatics:

- Lublin, Lublin Polytechnic University, Poland

- Cambridge, Churchill College, United Kingdom.

6M100200-Information Security Systems:

- Professor, Doctor of Technical Sciences, Head. Chair "Information Technologies Security" Korchenko Alexander Grigorievich. National Aviation University, Kiev (Ukraine, 2015).

- Professor, Doctor of Technical Sciences Gorbachenko Vladimir Ivanovich. Penza State University, Penza (Russia, 2015).

- Doctor of Technical Sciences, Professor, Head of the Department of Informatics and Automation of the University in Bielsko-Biała Karpinsky Nikolai Petrovich (Poland, 2013, 2015).

- Doctor of Technical Sciences, Professor of the National Aviation University, Kozlovsky Valeriy Valerievich Kiev (Ukraine, 2015)

- Candidate of Physical and Mathematical Sciences, Siberian State Aerospace University. M.F. Reshetneva (Russia) Zhdanov Oleg Nikolaevich

- Candidate of Technical Sciences, Ass. Professor of the National Aviation University Gnatyuk Sergey Aleksandrovich, Kiev (Ukraine, 2015, 2018).

In order to develop and maintain academic mobility in the university, the Department for International Cooperation and Academic Mobility regularly conducts individual and group consultations on academic mobility.

Table - Outgoing academic mobility of students according to EP 3 cluster for the period 2013-2018 academic years

Name of the trainee	Name of university	Academic year	Semester
EP 5B060800 «Ecology»			

Kumarova Eldana	Portugal, University of Aveiro	2013-2014	5
5B060200 - «Informatics»			
Rakhimzhanov Daniyar	Poland, Lublin, Lublin Polytechnic University	2016-2017	5
6M100200 - «Information Security Systems»			
Baltabay Aliya	China, Beijing Technical University	2015-2016	2,3

**Table - Incoming academic mobility of students
according to EP 3 cluster for the period 2013-2018 academic years**

Name of the trainee	Name of university	Academic year	Semester
EP 5B060800 «Ecology»			
Kuzekova A. Iskakova S.	Kyzylorda state University named after Korkyt Ata	2013	5
6M100200 - «Information Security Systems»			
Abeuzar Medeu	Karaganda State Technical University	2017-2018	1

The organization and planning of activities in the field of academic mobility at the university level is carried out by the Department for International Cooperation and Academic Mobility.

Planning and implementation of activities for the employment of graduates of the university are described in the documented procedure of the DP KazNRTU 710 - "Employment of graduates".

On April 13-14, an annual Vacancy Fair was held within the framework of the Caspian Petrocongress in KazNRTU on April 13-14, organized by the student community of oil engineers SPE together with the financial assistance department of the Registrar's Office.

Before the beginning of the academic year, the departments of the 3 clusters determine the bases of professional practices. Heads of the chairs appoint as professors of practice professors, associate professors and experienced teachers who are well aware of the specificity of the profession and the activities of the practice bases. The organization of all types of practices within the framework of cluster 3 is carried out according to prolonged or individual contracts.

Extended and individual contracts are made with the following enterprises and institutions of the city and region:

- according to the "Ecology" RSE "SRC" Karysh-Ecology "National Space Agency of the Republic of Kazakhstan, RSE" Kazhydromet ", Almaty, Kazphosphate" MU ", LLP" Global Oil LTD ", Moscow Automobile and Highway University (MADI) , Moscow, Mendeleev Russian University of Chemical Technology, Moscow, RSE "National Center for Processing Mineral Resources of the Republic of Kazakhstan", Balkhash-Alakolsky Department of Ecology, JSC "Center for Earth Sciences, Metallurgy and Enrichment", Institute of Biology and Biotechnology plants, DGP "Center for Hydrometeorological Monitoring", JSC "NTC "Bakor".

- on OP Informatika: Agreement on cooperation and joint activities: KFK Medservis Plus LLP, Asbis Kazakhstan LLP, Finance LLP, QBIT LLP, BARSAL LLP, Zeinet & SSE LLP, Almaty.

- according to OP 6M100200 "Information Security Systems" - Agreement with the IRT of the Ministry of Education and Science of the Republic of Kazakhstan, laboratory for information security; LLP "Tochpribor", LLP "Galaktika", Odessa Academy of

Telecommunications. A.S. Popova; National Aviation University, Kiev, Ukraine; "National Research Nuclear University" MEPhI ", Russia

Also, graduates have the opportunity to continue their studies in magistracy and doctoral studies in the specialty "Ecology" at their own department, graduates of the specialty "Computer Science" in the Master's program "University ITMO", KazNRTU after K.I. Satpayev.

With the graduates-employers, communication is established for the availability of vacant employment opportunities. Graduates inform the department staff about the availability of vacancies in the specialties and invite to vacancies the graduates of the KazNRTU after K.I Satpayev.

The best graduates-production workers were invited to work at the departments of the accredited cluster. For example, the Department of Biotechnology invited:

1. Sultanizy Nazerke, 5B060800-Ecology. Branch of JSC NC KTZH Almaty route distance, engineer-ecologist;

2. Medvedev Dmitry Alexandrovich, 5B060800-Ecology. LLP "Kazakhstan Agency of Applied Ecology", specialist of the department of assessment of physical factors and attestation of workplaces;

3. Amandaeva Aida, 5B060800-Ecology. RSU "Ecology Department of Almaty", the main specialist of the department of ecological regulation;

4. Nietkaubylova Nuria, 5B060800-Ecology. Kazakh National Agrarian University, master's degree;

5. Mirzakulov Rakhat Kanatovich, 5B060800-Ecology. LLP Center for Testing Product Quality, Environmental Specialist;

6. Сататағанов Марат Нұрболатұлы, 5B060800-Ecology. RSU "Department of Ecology of Almaty", Head of Department of Laboratory and Analytical Control;

7. Razgaziev Kanat Erlanovich, 5B060800-Ecology. RGP on PHG "Kazgidromet", engineer-instrument-metrologist;

8. Pak Alina Albertovna, 5B060800-Ecology. LLP "Kazakhstan Agency of Applied Ecology", specialist of the department for atmospheric air;

9. Seregina Svetlana, 5B060800-Ecology. Kazakhstan Agency of Applied Ecology LLP, Leading Specialist of Water Resources Department and Rationing.

The leadership of the EP encourages students to self-education and development outside the main program (extracurricular activities).

To ensure the extra-curricular activities of students, the Committee for Youth Affairs functions:

Table - Current organizations in the field of youth policy

№	Committee on Youth Affairs	Ensuring the implementation of the state youth policy, the tasks of the registration and upbringing process
1	League of Volunteers	Development of Volunteer Movement
2	SPE	Community of Petroleum Engineers
3	SAE	Community of Engineers
4	Be Smart in Business	Business-trainings, business-forums, case-clubs
5	IDC	Debate
6	Stand Up	Humor, public speaking
7	English Club	The development of English
8	Sport Lab	Development of sports
9	Art&You	Creative amateur performance, charity
10	Satbayev Hunters	Personal growth, cultural events
11	Enactus	Leadership and development

12	AAPG	Community of geologists
13	Insight	Personal growth
14	Technocrat (Kaz)	Debate (kaz)
15	ITSA – Student Association IT	Research activities in the field of information and telecommunication technologies
16	KazNRTU Society of Automotive Engineers Student Chapter	Training in practical skills required in industrial engineering
17	Student "Zhas Kanat"	
18	Youth wing "Zhas Otan"	

Students who are accredited under the supervision of the teaching staff actively participate in the implementation of initiative topics, the results of the work are published in international and foreign conferences; at the annual conference of the KazNRTU "Satpayev Readings". There are certificates of participation.

Students of the group EGB-13-1k Amantai A.E, Isakin A.E, Mukhazhan E.K, Nitchebylova N.O, Selmekeeva Zh .T., Serikbaeva K.M, Saparalieva E.E, Tran A.B, Kopzhursinova A.M, Smail G.N, Mirzakulov R.K, Nurtaeva M.N and EGB-13-1p Abaybekova G.A, Taimenova A., Zhakiyanova A.S, Spandiyarova A.S, Gataullina A.S, Medvedev D.A and 6 students passed through the II-tour (Amantai A.E, Nietakbylova N.O, Taran A.B, Smile G.N, Gataullina A.S, Abaybekova G.A). These students were awarded with certificates for participation.

On March 30, 2017, a scientific-student conference was held for students of OP Ecology among the 1-3 courses. 11 students took part, 3 of them were selected, as the best reports with the award of diplomas I, II, III degrees, 8 participants were awarded certificates for participation. A diploma of the first degree was given to a 2nd-year student of the specialty 5B060800 "Ecology", Shahanova Asyl (head: Musina U.Sh.)

At the institute IHIBT to improve the level of knowledge of languages and the degree of their integration into the program courses on learning English are organized. April 16-20, 2018 Department of English Language of the Institute of Basic Education. Akzhana Mashani conducted in the KazNRTU "English week". In 2018, the Institute of Basic Education of the KazNRTU hosted an inter-university Olympiad on the discipline "Kazakh language" as part of the program "Modernization of the public consciousness: spiritual renewal", where Satbaeyv University took the 1st place.

In the university there are mechanisms to support gifted students. To support gifted students, additional grants are awarded each year for students of the second, third and fourth years of study. Gifted students are informed about the support programs through the heads of departments, advisors, the support center for students, and also through the university's website.

The result of the motivation of the accredited students to the self-development of extracurricular qualities is their following achievements in the period from 2013-2018:

- within the framework of EP 5B060800 "Ecology":

Students of the group EGB-13-1k Amantai AE, Isakin AE, Mukhazhan EK, Nitchebylova NO, Selmekeeva Zh .T., Serikbaeva KM, Saparalieva EE, Tran AB, Kopzhursinova AM, Smail GN, Mirzakulov RK, Nurtaeva MN and EGB-13-1p Abaybekova GA, Taimenova A., Zhakiyanova AS, Spandiyarova AS, Gataullina AS, Medvedev DA and 6 students passed through the II-tour (Amantai AE, Nietakbylova NO, Taran AB, Smile GN, Gataullina AS, Abaybekova GA). These students were awarded with certificates for participation.

Students of the 4th course of the specialty 5B060800-Ecology Ybyraya SM, Asylbek DA, Mazhenova AE participated in the Satpayev Readings Conference - 2018 "Innovative solutions to traditional problems: Engineering and Technology". Ybyrayai SM was awarded a diploma for the Best Report at the Satpayev Readings - 2018.

- in the framework of EP 5B060200 "Informatics":

- Baityles N.S. published an article on the topic "Developing a Web application for a learning management system" in the journal "Bulletin of KazNRTU" in 2017, the head of AM Baygarinov.

- Sovetursynova A. published an article on the topic "Developing a Web application using the MVC pattern" in 2017, in the journal "Vestnik KazNRTU" head Asylbek AE.

- 4th year student, specialty 5B060200- Informatics. A.Symagulov participated in the Satpayev Readings Conference - 2018 "Innovative solutions to traditional problems: Engineering and Technology" on "Developing a mobile application for face recognition on the Android platform". Simagulov Adilkhan was awarded with a certificate.

- Əubekova MA published an article on the topic "Developing a mobile application" Gay math in Kazakh, for preschool-age children on the Android platform "in the journal" Vestnik KazNRTU "in 2017, the head of Baigarinov AM. The act of implementing the thesis project is available.

- in the framework of EP 6M100200 "Information Security Systems":

Master's specialties Baltabay Aliya, Yakimenko Mikhail, Ospanov Elmira, Ədilbekzyzy Sairan, Myrzakhanov Yerkebulan actively participated in such conferences as "The role and place of young scientists in the implementation of the new economic policy of Kazakhstan" International Satpayev Readings (2015, Almaty, KazNRTU); All-Russian scientific-practical conference "Information-telecommunication systems and technologies" (2015, Kemerovo); Information Security in the light of the Kazakhstan-2050 Strategy (2015); Collection of abstracts international scientific-practical conference "Information technology security and computer technology " InfoSec & (CompTech24-25 birch, 2016, Ukraine); International Satpayev Readings "Competitiveness of Engineering Science and Education" (2016, Almaty, KazNRTU); International scientific and practical conference "Mathematical Methods and Information Technologies of Macroeconomic Analysis and Economic Policy" dedicated to the 80th anniversary of the academician of NAS RK AAAshimov, (Almaty, 2017, KazNRTU); International Conference Riga-Almaty, 2018

The Alumni Association is established and is functioning at the university. The tasks of the Alumni Association are:

- development and strengthening of the system for the support of graduates of the University;

- development and strengthening of the University's connection with graduates and enterprises where they work;

- assistance to its members in the field of publishing their scientific and technical developments;

- assistance in the entry of the University into the world educational system and a number of others.

Trainees, in the framework of accredited EP, actively participate in annual regional, national and international competitions. Works are carried out in Russian and state languages.

The table shows the number of published scientific articles, competitive works by the students of the departments of the accredited 3 cluster in the period from 2015 to 2018.

Table - Number of scientific publications, competitive works of students 3 clusters

Educational program	2015/20 16 ac.year	2016/20 17 ac.year	2017/20 18 ac.year
5B060800 «Ecology»	12	11	9
5B060200 «Informatics»	-	3	1

6M100200 «Information Security Systems»	4	6	6
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For example:

Within the framework of OEP 5B060800 "Ecology":

- On March 30, 2017, the scientific and student conference of the chair was held among the 1-3 courses. 11 students participated, 3 of them were selected, as the best reports with the awarding of diplomas I, II, III degrees, 8 participants were given certificates for participation. The first degree diploma was awarded to the second-year student of the specialty 5B060800 "Ecology", Shahanova Asyl (head: Musina U.Sh., theme of the report: "Biological picture of the world");

- The second-degree student received the third-year student Imanbek Fatima (head: Iskakova KM, topic of the report: "Kerosinmen ıstan zherdi biotekhnologiyalyq әdispen tazartu");

- The third-degree diploma was awarded to the second-year student of the specialty 5B060800 - "Ecology", Abilzhanov Yerkebulan (head: Zhaksybayeva GS, theme of the report: "Ecological condition of the air basin of Almaty city").

By specialty 6M100200-SIB:

- Baltabay A. Designing and ensuring the integrity of the biometric database. Proceedings "The role and place of young scientists in the implementation of the new economic policy of Kazakhstan" of the International Satpayev Readings. Volume IV. - Almaty: UI KazNTU, 2015.

- Baltabay A. Application of biometric fingerprint authentication in the training of specialists // Proceedings of the III International Scientific and Practical Conference "Information Security in the Light of the Kazakhstan-2050 Strategy", 2015. - P. 287.

- Baltabay A. Methodology of biometric image databases formation // Proceedings of the International Conference ISPIT-2015 _- (Information Security and Protection of Information Technology), ITMO, St. Petersburg: ITMO, 2015.

- Yakimenko M. Implementation of protection against the main types of attacks in the Linux OS. Collection of abstracts international scientific-practical conference "Information technology security and computer technology " InfoSec & (CompTech24-25 березня), 2016

- Adilbekkyzy Sairan «Device of fast reduction of numbers modulю» copyright certificate for the invention, 2018.

According to the questionnaire, the students express full satisfaction with the availability of academic counseling (94.2%); quality of the student health service (80.8%); availability of library resources (98.1%); existing educational resources (92.3%); general quality of training programs (100%); the ratio between the student and the teacher (98.1%).

Analytical part

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

The management of the EP in Samotchet described the availability and application of a mechanism for recognizing the results of academic mobility of students. The university provides an opportunity for external and internal mobility of trainees, it provides assistance in obtaining external grants for training, as evidenced by the training of a student specializing in Ecology in Italy. However, academic mobility by accredited EPs is not developing at the proper level.

In 2016-2017 and 2017-2018 academic years on the basis of the approved list of specialties set for EP 5B060800 - Ecology and EP 5B060200 - Informatics was not produced.

The management of the EP organizes meetings and seminars with potential employers, job fairs for the purpose of employing graduates of the EP. Representatives of

more than 40 companies took part in the events, including Schlumberger, KazTransOil, Baitau Partners, Kazakhmys Corporation, Philip Morris Kazakhstan, KaspiMunaiGas, construction company BASIS, Bureau Veritas Kazakhstan, Consulting Engineers, Borusan Makina Kazakhstan "Aknur Security", "Pacific", representatives of the NSC.

Table - Employment of graduates of accredited EP 3 Cluster

2014/2015 r.		2015/2016 r.		2016/2017 r.	
release, people.	Employment %	release, people..	Employment %	release, people..	Employment %
5B060800 - Ecology					
18	72%	10	70%	18	38 %
5B060200 - Informatics					
27	88%	30	77%	34	91%
6M100200 - "Information Security Systems"					
-	-	1	Training in two-discipline (SSCO) - 2018g. graduation	3	100%

Monitoring of actual employment is carried out twice: three and six months after the completion of studies at the university (September and December of the year of release) with the help of statistical data obtained from the SCPP.

Strengths / best practice

- The policy of forming a contingent of trainees in the context of the OP from receipt to release and ensuring the transparency of its procedures. Procedures regulating the life cycle of students (from admission to completion), identified, approved, published.
- Conducting a program of adaptation and support of foreign students.

EEC recommendations

1. By developing and introducing joint educational programs with higher education institutions in Kazakhstan, to increase the number of students pursuing internal academic mobility.
2. Strengthen the work on attracting graduates of accredited PAs in the work of collegiate management bodies, including in the association of graduates.

Conclusions of the EEC on the criteria: strong-3, satisfactory-7, suggest improvements-2.

5.7. Standard "Teaching staff"

- ✓ *The University should have an objective and transparent personnel policy, including in the context of the EP, which includes hiring, professional growth and staff development, which ensures the professional competence of the whole state.*
- ✓ *Use should demonstrate the adequacy of the staff potential of the teaching staff strategy for the development of the university and the specifics of the EP.*
- ✓ *The EP manual should demonstrate awareness of responsibility for its employees and providing them with favorable working conditions.*
- ✓ *PO guidance should demonstrate the changing role of the teacher in relation to the transition to student-centered learning.*
- ✓ *Use should determine the contribution of the teaching staff to the implementation of the development strategy of the university, and other strategic documents.*

- ✓ University must provide opportunities for career growth and professional development of the teaching staff EP.
- ✓ The EP manual should involve practitioners in the relevant industries.
- ✓ The EP manual should provide targeted action to develop young teachers.
- ✓ Use should demonstrate the motivation for the professional and personal development of the teachers of the EP, including the promotion of both the integration of research and education, and the use of innovative teaching methods.
- ✓ An important factor is the active use of teaching staff of information and communication technologies in the educational process (for example, on-line training, e-portfolio, MEP, etc.).
- ✓ An important factor is the development of academic mobility within the framework of the OP, attracting the best foreign and domestic teachers.
- ✓ An important factor is the involvement of the teaching staff of the EP in the life of society (the role of teacher staff in the education system, the development of science, the region, the creation of a cultural environment, participation in exhibitions, creative competitions, charity programs, etc.).

The Evidence

The activity of teacher staff is carried out on the basis of the Code of Corporate Ethics of KazNRTU after K.I. Satpayev, whose goal is to develop a quality culture for effective interaction with stakeholders through the application of business conduct practices and the development of a unified corporate culture based on high ethical standards in making both strategic decisions, and in everyday situations. KazNRTU counts on the adherence of each teacher to the fundamental corporate values.

The university has a system of hiring teachers on a competitive basis and on the basis of hiring. The procedures for recruitment, familiarization of personnel with rights and duties, movement, dismissal are carried out by the Personnel Management Department (PMU) in accordance with the legislative acts of the Republic of Kazakhstan and internal regulatory documents and approved procedures: "Personnel management", "Staff development and training", "Archive", "Organizational Documentation", "Internal Regulatory Documentation" and "Service Documentation".

Qualifications of teachers, their quantitative composition correspond to the directions of bachelor's training, meet the licensing requirements. Qualifications of teachers of accredited Chairs 3 of the cluster for 2015-2018, their quantitative and qualitative composition are presented in the table.

Table - Qualitative composition of teacher staff Chairs 3 Cluster

Ac. year	Main (staff) staff, people	From the main (staff) staff have:						staff enlisted on the basis of staffing	% Of teaher staff with a scientific degree	% full-time teachers
		Academic degree		Academic rank		PhD	academic master's degree			
		Doctors of Science	Candidate of Science	Professors	Associate Professor					
Department "Biotechnology"										
2015-2016	31	6	15	4	7	1	4	-	85	100
2016-2017	27	5	8	2	7	2	6	2	88.9	92,6
2017-2018	21	3	5	1	3	2	8	2	95	90,5

Department of Information Security										
2015-2016	15	1	7	-	5	-	4	2	53	87
2016-2017	15	2	4	1	3	-	6	1	40	93
2017-2018	9	1	2	-	2	-	5	6	33	60
Department of Computer and Software Engineering										
2015-2016	27	1	5	1	1	1	15	2	22,2%	93,1
2016-2017	31	1	5	1	1	1	14	2	21.2%	93,9
2017-2018	30	1	4	1	1	-	17	4	15,2%	88,2

The teaching staff of the accredited Chairs of the Cluster 3 includes specialists who provide the educational process in the state language with an average of 81%.

According to the accredited Environmental Ecology Committee, for 2015-2018 the Contest Commission received positive opinions regarding 6 doctors, 13 Candidates of Sciences accepted for work, 7 from external organizations, 1 PhD in PhD, and 5 from graduate students of the University.

According to the accredited information system of the Information Security System, for 2015-2018 the contest committee received positive opinions regarding 1 doctor, 2 candidates of science accepted for work, from outside organizations, graduate students of the University - 4 people.

Since 2011, the senior academic staff of the department "Information Security" has received the academic master's degree: Y. Hubuzova, A. Ogan, and also young specialists, masters, graduates of ITMO (St. Petersburg), KazNRTU, Academy of National Security Committee Imanbaev A.Zh., Ziro A.A, Zhaibergenova Zh.A., Kyzyrkhanov A., Zhamankulova A.A, Batyrgaliev A.B.). In 2018, the program of the doctoral studies of the Chair of Information Security, Y. Khubuzov, completes the program.

In the chair "Computer and Software Engineering" in 2019-2021, the lecturers of the chair Kanatov M.K, Ergaliev E.N. complete the program of doctoral studies.

The following fundamental and applied scientific research was carried out at the Department of Biotechnology:

1. GFNP RK, the theme "Development of technologies for complex processing of solid wastes of production of mineral fertilizers in targeted products" for 2012-2014. The head of the topic is H.T. Turgumbaeva.

2. № 753. MES GF.13.18 "Heterogeneous interactions in multicomponent silicate-containing systems in the processes of synthesis of new materials" for 2012-2014. Head of the topic Kazova R.A.

2 GFNP MES RK, the topic "Creation of a technology for obtaining phosphorus fertilizers with a high content of P₂O₅ assimilated by using the mechanical forces of surface electromagnetic fields" for 2015-2017. Head of the topic M.T. Oshakbaev.

3 GFNP MES RK, the theme "Development of technology for the production of binders and road mixtures from wastes of the phosphorous industry." №0115PK01933, for 2015-2017. The head of the topic is H.T. Turgumbaeva.

4 GFNP MES RK, the topic "Utilization of phosphorus industry wastes with obtaining multi-purpose products for the construction industry". No. 0115 of the Republic of Kazakhstan 01932 for 2015-2017. The head of the topic is H.T. Turgumbaeva.

5 Contract №757. MES. GF.12.1 (2), PCF "Development of energy-efficient technologies based on alternative energy sources" for 2014-2016. on section 1 "Development of a technological scheme for biogas production and calculation of a biogas plant (bioreactor)" direction 4 "Development of an autonomous power plant on biogas and energy efficient technological solutions in the design of residential buildings" Topic leader Nurkeev S.S.

The following fundamental and applied scientific research was carried out at the Department of Information Security:

- № 753. MES.GF 13.13 "Investigation of implementation options and development of the existing laboratory model ON-LINE of the biometric de-identification system for electronic medical records for a medical institution", project manager, Doctor of Technical Sciences, Professor Akhmetov B.S.

- №757.PTSF.AE.14.1 "Development of energy-efficient technologies based on alternative energy sources" for 2014-2016 "in the section" Helio-thermal energy storage system (GTES) on the basis of a multifunctional solar panel ", the head of the section Doctor of Technical Sciences, professor Akhmetov BS.

In addition, the commercialization project No. 079-16-GK is being implemented to commercialize the results of scientific and (or) scientific and technical activities. "Manufacturing of an industrial prototype device to protect against unauthorized access."

The head –N.A. Seilova, Ph.D., Assistant Professor, 2016-2018..

The following fundamental and applied scientific research was carried out at the Department of Computer and Software Engineering:

- Development of methods and algorithms for heterogeneous data collection, analysis and interpretation in multilayer spatially distributed monitoring system models of renewable energy sources. (2015-2017) (by order Ministry of education and science of Kazakhstan. Grant № 0168/ГФ4), reg. number 0115PK00545. The project was completed in 2017, the project manager Dr.Sc. professor Mukhamediev R.I.

- "Creation of a scientific and methodological basis for a single integrated system for automation of the processes of medical care for the population of the Republic of Kazakhstan." №748.MON.TROUN.12.8. 2012-2013 Researcher - candidate of technical sciences. professor Beisembekova R.N.

- "Study of implementation options and development of the current laboratory model ON-LINE of a biometric de-identification system for electronic medical records for a medical institution". №753.MON.ГФ.13.13 / 0868 / ГФ3. 2013-2014 Researcher - candidate of technical sciences. professor Beisembekova R.N.

- "Development of a wireless distributed monitoring system for pollution of waste sewage with antibiotics and aggressive medicinal products". GF Ministry of Education and Science of the Republic of Kazakhstan for 2015-2017. No. 0115PK01947. Researcher - candidate of technical sciences. professor Beisembekova R.N.

Training in the disciplines "Biometrics and neural networks", "Neural networks".

In the period from 2013 to 2018. teachers of the accredited departments received training seminars:

✓ **"Biotechnology"**

- a training seminar for the teaching staff and staff of the Institute of Chemical Technology, KazNRTU, 07-09 August 2017 (participated in the entire composition of the teaching staff and TSS);

- English courses:

A) Elementary (Bizhanova GZ, Kurbanova LS, Sarsembin U., Ahmedova GR, Musina U.Sh., Dzhamalova GA, Djoldybaeva SM)

B) Pre-Intermediate (Atanova OV, Nurmakova SM, Dzholdybaeva SM, Utarbaeva AS, Malakhova NP, Abildaeva A.Zh.)

- participation in the seminar on teaching the use of the new university portal, on December 21, 2017 (the whole composition of the teaching staff and the UVP of the department of Biotechnology)

- Nurmakova SM, Bizhanova GZ, Kurbanova LS, Atanova OV, Sarsenbaev SO, Abildaeva A.Zh. Seminar on "Requirements and practical use of ISO 14064 standards complex". Certificate. 2017

✓ **"Information Security"**

- Askarova NT, Sagymbekova AO Lublin Polytechnic University. Online seminar "Development of security methods using steganography".

- Dzhuruntayev D.Z. Almaty city of KazNU. Al-Farabi, Programs for modeling the operation of digital and analogue circuits B2 Spice. CAD Vwado 2016. Designed for the synthesis, modeling of digital devices, the implementation of projects in the FPGA FPGA firm Xilinx using high-level languages Verilog, VHDL. CAD program Quartus 11 firm Altera for the design of digital devices using the languages Verilog, VHDL, etc.

- Tynimbaev S.T. Institute of Information and Computing Technologies of the Academy of Sciences of the Republic of Kazakhstan. Scientific hand, Biyashev RG

- Seilova N.A. Preparation of internal auditors of the quality management system in accordance with the international standard ISO 9001: 2008 (2014)

- Seilova N.A. Preparation of internal auditors of the quality management system in accordance with the international standard ISO 9001: 2015 (2016)

- Seilova N.A. Management of incidents of information security, 2014.

- Teaching staff participation in seminars of leading IT companies and international conferences, for example, Kaspersky Day, Profit Cloud day, Profit Education Day, etc.

✓ **"Computer and Software Engineering"**

- Beisembekova RN, Almaty, KIMEP University, on the topic "Institutional Research and Its Role in Academic Institutions", 2016;

- Atytytaeva LB, Adilbekova AK, Alibieva Zh.M., Ayazbaev DA, Baigarinov AM, Dzhunusova SM, Irzhanova AA, Kairbekov AM, Kanatov MK, Kunikeev AD, Margulan K., Moldakalykova A.Zh., Mustafina BM, Rysmendeeva G.S., Togzhanova K.O. - Prof. Mateus Mendes (Higher School of Technology and Management of the Oliveira do Hospital, Politechnic Institute of Coimbra) on "Artificial Intelligence", 2016;

- Atytytaeva LB, Adilbekova AK, Alibieva Zh.M., Ayazbaev DA, Beldeubaev M., Dzhunusova SM, Irzhanova AA, Kanatov MK, Margulan K., Moldakalykova A.Zh., Mustafina BM, Rysmendeeva GS, Togzhanova K.O. - Prof. Vedat Kiray (International Ataturk Alatao University) on "FPGA Digital Design", 2016;

- Mustafina BM, Almaty, KazNRTU. Matlab Fundamentals in Math, 2017

- Mukhamediev R.I. Almaty, a seminar on the theme "Digitalization of industry is the basis of the fourth industrial revolution", 2018.

- Yunusov R., Almaty, seminar on the theme "Digitalization of industry - the basis of the fourth industrial revolution", 2018.

Individual plans of teachers are considered and approved at the meetings of the departments "Biotechnology" (protocol No. 1 of August 27, 2015, August 25, 2013, August 30, 2017), "Information Security" (Protocol No. 1 of August 27, 2015, August 25, 2016;), "Computer and software engineering" (Protocol No. 1 of August 27, 2015, August 25, 2016, August 30, 2017).

EP Ecology has long-term agreements on cooperation in the field of science and education with foreign educational organizations and scientific centers:

1) Agreement on creative cooperation between NPC "Bacorfiltrkeramika", Moscow and KazNRTU named after K.I. Satpayev (long-term);

2) Agreement on scientific and educational cooperation between the St. Petersburg Polytechnic University (Russia) and the KazNRTU named after K.I. Satpayev;

3) Agreement No. 2 dated 01.11.08 (long-term) on the scientific and technical cooperation "Bacorfiltrkeramika" with KazNRTU on the basis of creative relations (long-term);

4) Agreement on scientific and educational cooperation between the Russian Chemical Technical University. D.I.Mendeleev and KazNRTU after K.I. Satpayev ", Moscow (2012, validity period - 5 years);

5) Agreement on scientific and educational cooperation between the Moscow Road Institute and KazNRTU named after K.I. Satpayev ", Moscow (2012, validity period - 5 years).

EP 6M100200-SIB has long-term agreements on cooperation in the field of science and education with foreign educational organizations and scientific centers:

- 1) Odessa Academy of Telecommunications. A.S. Popova;
- 2) National Aviation University, Kiev, Ukraine;
- 3) "National Research Nuclear University" MEPI ", Russia
- 4) University of Valencia.

In 2012, was awarded the title of "The best teacher of the university" Anapiya B.B. and Iskakova K.M. (EP "Ecology"), in 2013, Canaeva Z.K. (EP "Ecology").

For professional development of young teachers, the university sends for internships in the best universities, for example, in 2017, an internship at the University of Cambridge was held by the lecturer Ziro A.A. - Department of Information Security.

The results of the research work of the teaching staff of departments of the 3rd cluster are published in scientific articles of foreign and Kazakhstan publications, in collections of scientific conferences, monographs.

With the purpose of professional development of young teachers of the department "Computer and Software Engineering", the University sends for internships to the best universities, in 2017, the following teachers of the department passed the internship at the University of Cambridge on the topic "Machine learning": Mukhamediev RI- professor, Yunusov R. - Assistant - Professor Nurseytov DB - associate professor, Kunikeev AD - senior lecturer, Kanatov MK - lecturer, Ersari I.N. - tutor, Bostanbekov KA-tutor.

Table - Statistical indicators of research in the department "E, BZHIZOS"

№	Indicators of R & D	quantity		
		2015 y.	2016 y.	2017 y.
<i>Department of Ecology</i>				
1	Availability of patents, qt.	-	7	1
2	The issue of monographs, qt.	1	0	0
3	Issue of textbooks, qt.	-	-	-
4	Issue of teaching aids, qt.	3	3	-
5	Issue of scientific articles in publications with a nonzero impact factor, qt.	1	1	1
6	Kazakhstan publications, qt.	22	18	13
7	Foreign publications, qt.	11	6	1
8	Participation of staff in conferences, qt.	20	18	12
<i>Department of Information Security</i>				
1	The presence of patents, qt.	1	1	1
2	The issue of monographs, qt.		1	
3	Issue of textbooks, qt.		4	
4	Issue of teaching aids, qt.	1	1	1
5	Issue of scientific articles in publications with a nonzero impact factor, qt.	9	9	10
6	Kazakhstan publications, qt.	31	9	4
7	Foreign publications, qt.	11	19	11
8	Participation of staff in conferences, qt.	8	7	6
<i>Department of Computer and Software Engineering</i>				
1	The presence of patents, qt.	-	-	-
2	The issue of monographs, qt.	-	-	1

3	Issue of textbooks, qt.	1		3
4	Issue of teaching aids, qt.	-	1	-
5	Issue of scientific articles in publications with a nonzero impact factor, qt.	4	2	1
6	Kazakhstan publications, qt.	10	8	11
7	Foreign publications, qt.	3	19	8
8	Participation of staff in conferences, qt.	9	5	9

The table provides information on the number of teaching staff, who have been upgraded in terms of accredited departments.

Name of the department	2015-2016 ac.year	2016-2017 ac.year	2017-2018 ac.year
<i>Department of Biotechnology</i>	16	16	9
For example, in 2018 on the basis of the Kazakhstan public academy of applied ecology, life safety and sustainable development on the topic "Requirements and practical use of the ISO 14064 standards set". (Nurmakova SM, Bizhanova GZ, Kurbanova LS, Atanova OV, Sarsenbaev SO, Abildaeva A.Zh.) and others.			
<i>Department of Information Security</i>	16	15	10
These are distance seminars, advanced training in universities of Kazakhstan, Almaty, KazNU. Al-Farabi; Institute of Information and Computing Technologies of the Academy of Sciences of the Republic of Kazakhstan, Cisco Academy and others.			
<i>Chair Computer and Software Engineering</i>	4	36	12
<ul style="list-style-type: none"> - - Atytytaeva LB, Tulemisova GE, Makulov KK, Nurtaylakov DN, Margulan K., Mustafina BM, Sagdoldanova AA - Portugal, Coimbra Polytechnic Institute, courses on "Computer Science and Software", 2017; - - Ersari I.N. Japan, Tokyo, Tokai University, Japan-Asia Youth Exchange Program in Science, 2018; - - Kanatov MK, Japan, Tokyo, Tokai University, Japan-Asia Youth Exchange Program in Science, 2018; 			

Table - State awards, honorary titles, diplomas for merits in the field of education of teaching staff of departments of 3 clusters

Full name of the employee	Awards
Department "Biotechnology"	
Kanaeva Z.K.	2013 The best teacher of the university
Anapiaev B.B.	2012 The best teacher of the university
Iskakova K.M.	2012 The best teacher of the university
Department of Information Security	
Aitkhozhaeva E.Zh.	Honorary Worker of Higher Education
Djuruntaev D.Z.	Honorary Worker of Higher Education
Seilova N.A.	Medal of Ayryksha Ebegi ushin Honorary letter to the 20th anniversary of Independence of the RK, Letters of thanks
Alimseitova Zh.K.	Letters of thanks
Department of Computer and Software Engineering	
Beisembekova R.N.	Medal "Ayryksha Ebegi Ushin"

The teaching staff questionnaire, conducted during the visit of the NAEC HEC, showed that:

- the university provides opportunities for teaching staff to use innovations in teaching - very good and good - 94.5%;
- teaching staff satisfies the content of the educational program - very good and good - 90.3%;
- 89.1% of the teaching staff highly appreciate the support of the university and its leadership in the research initiatives of the teaching staff;
- the level of feedback between the teaching staff and the management is 87.2%;
- 87.3% of the teaching staff are satisfied with the organization of academic mobility, and the plan of work to upgrade the qualifications of the teaching staff;
- 83.6% of teaching staff find it difficult to combine teaching with scientific research.

Analytical part

The EEC Commission notes the lack of development of academic mobility in the framework of accredited OP.

Also, the department does not pay due attention to planning to increase the level of foreign language proficiency in the PPS of the accredited departments.

Strengths / best practice

- An objective and transparent personnel policy, which includes hiring, professional growth and development of personnel, ensuring the professional competence of the whole state.
- Correspondence of HR staff potential of the strategy of the university development and specificity of the educational program.
- Awareness of responsibility for their employees and providing them with favorable working conditions.
- Providing leadership of the OP with targeted actions to develop young teachers.

EEC recommendations

1. Continue the work on the organization of programs to upgrade the qualifications of the teaching staff of the department.
2. Develop a work plan for the accredited departments for the next 3 years to improve the level of foreign language proficiency in the teaching staff of the department.
3. To work out the mechanisms for organizing seminars on topical issues of the disciplines of educational programs with the involvement of specialists from corporate partners.

Conclusions of the EEC on the criteria: strong-4, satisfactory-8, suggest improvements-2.

5.8. Standard "Educational resources and student support systems"

- ✓ *The EP management should demonstrate the sufficiency of the material and technical resources and infrastructure.*
- ✓ *The EP management should demonstrate the existence of support procedures for different groups of learners, including information and counseling.*
- ✓ *The EP management should demonstrate the correspondence of information resources to the specifics of the EP, including compliance:*
 - *Technological support of students and teaching staff in accordance with educational programs (for example, online training, modeling, databases, data analysis programs);*
 - *Library resources, including the fund of educational, methodological and scientific literature on general education, basic and profiling disciplines on paper and electronic media, periodicals, access to scientific databases;*

- examination of the results of research, final works, dissertations on plagiarism;
- access to educational Internet resources;
- The functioning of WI-FI in the territory of the organization of education.
- ✓ The university should strive to ensure that the educational equipment and software used for the development of educational programs are similar to those used in the relevant sectors.
- ✓ The institution should ensure compliance with safety requirements in the learning process.
- ✓ The university should strive to take into account the needs of different groups of students in the context of the OP (adults, working, foreign students, as well as students with disabilities).

The Evidence

The University has a material and technical base that provides all types of practical training and research work of students, as stipulated by the curriculum of the university and corresponding to the current sanitary-epidemiological and fire-fighting norms and rules.

The university creates a learning environment that promotes the formation of the professional competence of students on the basis of their individual needs and opportunities.

The main human resource of the University, connected with the implementation of the educational and scientific process, is the human resource as the integration of the personal resources of the faculty members (faculty members) and management personnel (representatives of the administration, heads of institutes, departments, structural units).

Conditions for satisfying the social, personal and everyday needs of students at the university are created by:

- Directorate of Institutes (<http://kaznitu.kz/ru/schools>)
- Departments (<http://che.kaznitu.kz/en/departments>)
- Registrar's office (<http://kaznitu.kz/en/departments/ro>)
- Scientific library (<http://kaznitu.kz/en/departments/library>)
- Department of Information Systems, etc. (<http://kaznitu.kz/en/departments/dit>)
- Department of Student Affairs
- student union

The university creates conditions for meeting the social, personal and everyday needs of students.

At the university for various events there is one assembly hall for 380 people and one conference room for 70 people. The Committee of Youth Organizations, which oversees the work of student associations, has two offices.

The university has an effective system of information and feedback, which includes:

- sites of the university (official site <http://satbayev.university>, electronic library <http://e-lib.kazntu.kz>);
- educational portal (<http://sso.kaznitu.kz>);
- Electronic document management system (<http://sed.kazntu.kz/>);
- sites of museums of the university (<http://history.kazntu.kz/>, <http://minerals.kazntu.kz>);
- means of the university media (youth newspaper "MY Politech" <http://mypolytech.kazntu.kz/>, journal "Bulletin of the KazNRTU" <http://vestnik.kazntu.kz/>);
- external media, etc.

To ensure the possibility of prompt and effective access of various levels of users to educational information, the Educational Portal (<http://sso.kaznitu.kz>) has been created, which serves as a link between all participants of the educational process.

The university has created a learning environment that reflects the specifics of educational programs, which includes:

- a) technological support of students and faculty in accordance with the programs for example, online training, modeling, databases, data analysis programs);
- b) personalized interactive resources (with access and outside of school hours), including teaching materials and assignments, ensuring the possibility of a trial self-assessment of students' knowledge through remote access to the university portal;

c) interactive academic consultations in order to assist students in the planning and development of 6M100200-SIB EP and 5B060800 "Ecology", including through the use of personalized interactive resources;

d) technical staffing.

The educational portal, through feedback, allows students to send requests to the PPP and receive answers to them. Various technologies of distance education have been developed at the university, one of which is the holding of online lectures in the format of webinars. Created specialized workplaces and virtual rooms, where teachers read online lectures.

In the reading rooms for users installed personal computers connected to the local Internet, 1 hall of catalogs and 1 hall of periodicals. The library has Wi-Fi zones.

Specialties are equipped with the necessary auditorium, educational laboratories, computer classes, a methodical room, sports halls. The equipment of the material and technical base allows to conduct the educational process at the level corresponding to the requirements of the state standards of higher education.

The educational portal serves as a "single window" for access to all educational and information resources of the University. They are constantly being improved, new functionality is being developed, new modules are being developed.

Currently, students actively use mobile devices to access educational resources and to their personal data on the educational portal. The University has developed a mobile application for the Android platform.

The scientific library is a subdivision of the university, which provides information support to the educational process and scientific research.

* The library provides each student with the basic educational, scientific and educational methodological literature necessary for the organization of the educational process, in accordance with the requirements of the State Educational Establishment of the Republic of Kazakhstan. All students of the University receive sets of textbooks that correspond to curricula, and have access to all information resources, including electronic resources.

To meet the needs of the scientific and educational process of the university, the library provides free access to licensed foreign databases: EBSCO, Elsevier - Science Direct, Scopus, Clarivate Analytics (Thomson Reuters), Springer Nature, based on licensing agreements and IP addresses.

Each student is provided with unlimited access to the Electronic Library System (EBS): IPRbooks EBS of the publishing house "Lan" provides an extensive collection of publications on the topic "Engineering and technical sciences", etc. Databases provide users the opportunity to work in their personal cabinet from anywhere in including from mobile devices.

Table - The state of the library fund for 2015-2018. accredited by EP 3 cluster

Specialty code	Institutes	Name of specialties	The library fund (ODD, PD, DB)	Number of textbooks, teaching methodical and scientific literature		
				Kazakh language	Russian	English
5B060900	PMI	Ecology	13954	5659	8295	4
5B060200	IlandTT	Computer science	26818	9576	17092	608
6M100200	IlandTT	Information Security Systems	4876	1752	3089	33

The Scientific Library generates its own electronic resources. The fund of the electronic library of the university is formed according to the directions of educational programs and provides access to 18,000 pieces of electronic information locally and remotely.

The electronic catalog (EC) of the library is created on the basis of the automated library system "RABIS" and is an integral part of the reference and retrieval apparatus. EC includes 182789 bibliographic records, of which 126 972 entries reflect the collection of books, dissertations, collections, ongoing publications; 55 817 records reveal the content of scientific periodicals.

Analytical activity of the library includes the accounting and verification of publications of university employees in science-based databases indexed by Clarivate Analytics and Scopus, RINC. The library has a deployed system of points of service. At the service of readers - 8 subscriptions, 9 reading rooms, 2 rooms of electronic resources.

The total area of the library is 3400 sq. M. m, the number of seats - 597.

The library has 113 computers connected to the Internet, 2 scanners (1 robot, 1 planetary book scanner), equipment for barcoding, etc. Currently, work is underway to switch to the software "MegaPro", a new generation web-based system built on the basis of "Cloud" technologies.

According to the Model Regulations on the Dissertation Council (approved by the order of the Minister of Education and Science of the Republic of Kazakhstan from March 31, 2011 No. 126, changes and additions were made by the orders of the Minister of Education and Science of the Republic of Kazakhstan №225 of May 18, 2012, No. 172 of May 4, 2013) the doctoral dissertations are checked for the presence or absence of plagiarism at the National Center for Scientific and Technical Information.

From 2014-2015 academic year in the experimental mode the university system "Anti-plagiarism of the NAO KazNRTU" was launched. All graduate qualification works of undergraduate students and master's theses are tested for uniqueness in this system. From 2016-2017 academic year, the system for checking the work on the antiplagiat "Antiplagat.PL" is used.

KazNRTU has the necessary number of auditoriums equipped with technical training facilities: educational and scientific laboratories equipped with modern equipment, corresponding to the implemented EP 6M100200 - "SIB", sanitary and epidemiological norms and requirements.

Table - Specialized audiences and laboratories, used in the implementation of accredited Ops

Name	Equipment	Auditorium number / building	Area
<i>EP 5B060800 Ecology</i>			
Training laboratory	Portable soil analysis equipment, laboratory equipment - coagulation water treatment complex, magnetic stirrer, balance, pH meter, spectrophotometer, Hydrometer for soil AG, Refractometer lab. IRF-45462M,	135/GMK	16 м ²
Учебная лаборатория	Биноккулярные микроскопы, лабораторные весы, сушильные шкафы, стерилизатор паровой, холодильник, шкаф ламинарный AVC-5d1, микроскопы биноккулярный – 8шт, Термостат воздушн.с охлажд., раб.камеры,	146/GMK	16 м ²
Training laboratory	Projector, multimedia board, laboratory furniture - chemical tables, bedside tables, exhaust hood, basic set of mobile modules, portable water analysis kit with photometer, carbon dioxide sensor, FEC,	148/GMK	20 м ²

	CPC, oxygen sensor, portable equipment for physicochemical water analysis, distiller. Magnetic stirrer 2pcs, refractometer irf-454bm, Analytical electronic scales incl. No.CZ-4710ЛФ - 3 pcs., pH meter-3 pcs., ecological set of water bioanalysis, spectrophotometer, psychrometer mv-4-2m, aspirator, centrifuge opn-3.02 , Flute 02-ZM analyzer, Ionomer I-160, Wing anemometer, Gas analyzer		
Computer class	Computers - 11 pcs, software - "URZA" and "UPRZA noise" (training), projector, screen	230/GMK	25 m ²
Scientific laboratory	The microscope is binocular. Model MikMed.Nº386, refrigerator, chemistry.stol, irradiator of bacteria., Laptop Leonovo G580 15.6 Intel Core i7 8Gb - 2pcs, color printer HP PRO 200m251n, bioreactor model, exhaust cabinet, high-temperature electric furnace SNOL, electrophoresis system (mini system of electrophoresis for the distribution of DNA / RNA), a table for viewing the gel with ultraviolet radiation UVT = S-AR, a magnetic stirrer, a binocular microscope, a muffle furnace, a 5 liter distiller.	3 Technopark	32 m ²
6M100200 - "Information Security Systems"			
Laboratory of circuit design	Monoblock - 8 pieces, Windows, Linux with the following software Matlab, Microsoft Visio, CorelDRAW, Adobe Photoshop, Electronics Worcbench, Microsoft Visual Basic, 3DMax, TC, Tpas, NC, Total Commander, Microsoft Visual C ++, Adobe Flash Player, GPSS, EWB, Pascal, Assembler, Visual FoxPro, MSSQL Server 2008, ERWin, Platinum ERWin, Agnitum Outpost Firewall Pro, Linux, Virtual PC.	507/GMK	42 m ²
Kaspersky Lab	Computers - 11 PCs, software - Kaspersky Anti-Virus and Software, Windows, Linux with the following software MS SQL Server, Oracle, Matlab, Microsoft Visio, CorelDRAW, Adobe Photoshop, Electronics Worcbench, Microsoft Visual Basic, 3DMax, TC, Tpas, NC, Total Commander, Microsoft Visual C ++, Adobe Flash Player, GPSS, EWB, Pascal, Assembler, Visual FoxPro, MSSQL Server 2008, ERWin, Platinum ERWin, Agnitum Outpost Firewall Pro, Linux, Virtual PC. Software from the firms Serchinform, Falkongeyz.i and other interactive board-1	301/GMK	36 m ²
5B060200 - Informatics			
Diploma Design Office, Master's Degree Program and PhD Doctoral Students		1012/MEB	37,2 m ²

Teaching Room			
Teaching room		1010B/ MEB	27,6 м ²
Computer class	13 computers	1010A/ MEB	46,3 м ²
Computer class	13 computers	1010B/ MEB	35,6 м ²
Computer class	Apple class1, the main academic building of KazNIU-Apple, 12 pieces - Apple candy bar computer (MacOSXLion 10.7.5 2.5GHz processor, IntelCorei5, 8GB memory, 1333MNz, DDR3, ADRadeonHD, 6750M, 512MB), SINDO projector	1008A/ MEB	38,4 м ²
Компьютерный класс MAC OS Apple class	Apple class2, Главный учебный корпус КазНИТУ-Аппле, 9 штук - Компьютер-моноблок Apple (MacOSXLion 10.7.5 Процессор 2,5ГГц, IntelCorei5, память 8Гб, 1333 MHz, DDR3, ADRadeonHD, 6750M, 512MB), Проектор SINDO	1008B/ MEB	35,3 м ²
Office head laboratory	7 computers	1008B/ MEB	18,1 м ²
Computer class	14 computers	1014/ MEB	51,5 м ²
Multimedia class (lectures)		1023 MEB	37,3 м ²
Computer class	13 computers	1027/MEB	38,4 м ²

Computer classes are divided into universal general classes and specialized classes in the field of training specialists, as well as authorized local classes of leading vendors in the IT industry: Siemens, Cisco, Kaspersky, Apple, HP, IBM, SchneiderElectric, Autodesk.

All computer classes are equipped with modern software necessary for the training of highly qualified specialists, demanded in the labor market in the field of information security and IT technologies.

The training areas correspond to the current sanitary standards, fire safety requirements and qualification requirements. Functions to ensure the safety of students and employees of the University are vested in the Center for Operational Activities (hereinafter referred to as the Data Center).

In order to ensure the safety requirements in the training process, employees of the data center work around the clock to protect all the facilities of the University, as well as patrolling the surrounding territory.

The "Instruction on the organization of access and in-object regimes", which regulates the order of entrance / exit of students, faculty, employees of the KazNRTU, visitors and guests of the University, as well as employees of state and law enforcement bodies, is developed and strictly implemented.

In order to ensure the safety of students and employees, all the academic buildings of the University are equipped with fire and burglar alarm systems. This system includes, in addition to signaling, also a voice announcement system. The project of the system passed an independent examination, all equipment has certificates of conformity.

In the KazNRTU has developed a provision on integrated (inclusive) education, a form of organization of the educational process, in which training of students with disabilities is carried out in a single stream with normally developing peers.

According to the results of the questionnaire, the availability of computer classes and Internet resources fully satisfied 36.5% of trainees; educational rooms, audiences for large groups - 59.6%; rest rooms for students - 21.2%; available computer classes - 42.3%; scientific laboratories - 46.2%. Full satisfaction with the students studying at the hostel is 53.8% (7.7% are not satisfied).

Analytical part

When visiting educational buildings, departments, educational audiences, the commission of the EEC noted the insufficiently updated level of the furniture fund.

The Commission notes the possibility of introducing a dual training system in the context of accredited EP 3 cluster.

Strengths / best practice

- Correspondence of information resources to the specifics of the OP, including library resources, including the fund of educational, methodological and scientific literature on general education, basic and profiling disciplines in paper and electronic media, periodicals in the context of the languages of instruction.

- Examination of the results of research, final works, dissertations on plagiarism.

- Compliance with safety requirements in the training process.

EEC recommendations

1. For accredited educational programs, develop a plan for implementing dual training for 2018-2021. Provide a comfortable temperature regime in educational buildings in the winter.

Conclusions of the EEC on the criteria: strong-3, satisfactory-5, suggest improvements-1.

5.9. Standard "Public Awareness"

Information published by the university within the framework of the EP should be accurate, objective, relevant and should include:

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

The EP management should use a variety of ways to disseminate information, including the media, information networks to inform the general public and stakeholders.

Public information should provide support and explanation of national development programs of the country and the system of higher and postgraduate education.

The university should publish on its Web resource audited financial statements, including in the context of the EP.

The university should demonstrate the reflection on the web resource of information that characterizes the university in general and in the context of educational programs.

An important factor is the availability of adequate and objective information about the TS of the EP, in the context of personalities.

An important factor is informing the public about cooperation and interaction with partners within the framework of the EP, including with scientific / consulting organizations, business partners, social partners and educational organizations.

The institution should place information and links to external resources based on the results of external evaluation procedures.

An important factor is the participation of the university and implemented EP in various external evaluation procedures.

The Evidence

The activity of educational organizations promotes the transfer and dissemination of culture, the realization of socially significant functions in the transfer of knowledge, skills, social experience and the formation of competencies.

The order of publication on the activity of the university is carried out according to the academic calendar, the work plan for the activities of the structural subdivision and the

media plan of the university for the academic year, which is approved by the university administration.

Various media resources are used to create an image of an open educational institution, as well as press conferences, briefings, business contacts with editorial offices of newspapers, magazines, radio and television.

All important events held by the university are reflected in presentations on large-format permanent monitors located at the university. Regular reviews of publications in the press, as well as news stories on various TV and radio channels are regularly prepared for the rector's office.

Effective information mechanisms have been created: the University's Academic Council has become a key element in the adoption of basic methodological, program and structural solutions at the KazNRTU.

All information about the OC is placed on the page (<http://kaznitu.kz/ru>), information on the educational program can be obtained by clicking on the link (<http://kaznitu.kz/en/admission/gr/specialities/iss>).

Information on teaching, learning, evaluation procedures is posted on the student's page (RUE, QED), as well as in documented procedures of the KazNRTU 705 Educational Center, "Educational Process", DP KazNITU706- "Knowledge Assessment and Debt Elimination", DP KazNRTU711 - "Post-Graduate Professional Education" and others (on the site <http://kaznitu.kz/en/about/internal-regulations/2level/documented-procedures>).

Employment of graduates is facilitated by the holding at the University of the annual Job Fair with the participation of companies - potential employers. During the year, at the request of companies, presentations, guest lectures, interviews and tests are conducted to familiarize students about the available internship programs and vacancies for employers, as well as for employment.

University Internet resources are created at various levels of the hierarchy: from personal sites and department pages to general university information stores and are accessible to students and teachers both on the internal network KazNRTU, and in the international global Internet. Given the popularity and role of social networks in the lives of modern people, KazNRTU identifies accounts on social networks as important tools to inform the public and build a dialogue with it. Among them the main are:

1) Official website of the university (<http://kaznitu.kz/ru>) - is a universal information tool containing all the basic information on the organization of the educational process, the composition and structure of the university, major events, graduates, etc.

2). Accounts in social networks:

- vk.com (<https://vk.com/satbayevuniversity>),

- Youtube (<https://www.youtube.com/user/TheKazntu>);

- facebook (<https://www.facebook.com/satbayevuniversity>);

- Instagram KazNRTU (https://www.instagram.com/satbayev_university/);

-Instagram Biotechnology department
(https://www.instagram.com/biotechnology_su/).

The university's website contains information on the Consolidated Financial Statements in accordance with International Financial Reporting Standards (<http://kaznitu.kz/ru/about/internal-regulations/3level/mmrfa>).

Informing the public about cooperation and interaction with partners within the framework of the OP, including with scientific / consulting organizations, business partners, social partners and educational organizations is detailed on the university's website, which is adjusted and supplemented annually, taking into account the labor market requirements, the wishes of all stakeholders.

Analytical part

Following the principles of openness and accessibility for the public, it is necessary to post complete and reliable information about the university's activities, the rules for admission of applicants, educational programs, terms and form of education, international programs and partnerships of the university, the advantages of the university and each institution, information on graduates' employment, alumni feedback, contact information and other information useful for entrants and students on various information carriers.

The site reflects information on structural divisions and departments, but there is no complete information about the teaching staff and their activities.

Strengths / the best practice

Publication by the University in the framework of the EP information about the possibility of assigning qualifications at the end of the EP.

Recommendations of EEC

1. To provide wider accessibility to the public of information about the Teaching staff (personal pages of the management, the teaching staff, lists of scientific works, contact details).

Conclusions of the EEC on criteria: strong-1, satisfactory-11, suggest an improvement of-1.

5.10. Standard «In the section of separate specialty»**NATURAL SCIENCES, TECHNICAL SCIENCES AND TECHNOLOGY****The Evidence**

In order to familiarize students with the professional environment and relevant issues in the field of specialization, as well as to acquire skills on the basis of theoretical training, the education program includes disciplines and activities aimed at obtaining practical experience and skills in the specialty in general and in the relevant disciplines in particular.

- excursions to enterprises in the field of specialization (factories, workshops, research institutes, laboratories, training facilities, etc.) (table 20).

- Conducting separate classes or entire disciplines at the enterprise of specialization (Table 21).

- Conducting seminars to solve practical problems relevant to enterprises in the field of specialization, etc.

Table - Excursions

EP	Events	Excursions
Ecology	Activities aimed at obtaining practical experience and skills in the specialty in general and in the relevant disciplines in particular	- excursions to the enterprises in the field of specialization (Balkhash-Alakol Department of Ecology (Almaty), DGP GNPOPE "Kazmechanobr" (Almaty), RGP "National Center for Processing Mineral Resources of the Republic of Kazakhstan" (Almaty), JSC "Center science of land, metallurgy and enrichment ", DGP" Center for Hydrometeorological Monitoring "), "Aralo-Syrdarya Department of Ecology ", (Kyzylorda); JSC "Center for Earth Sciences, Metallurgy and Enrichment"; Kazfosfat LLP, Taraz; RSE "Kazgidromet" in Almaty; JSC «NC« Kazakhstan Temir Zholy » , Institute of Geography of the RK.

Table - Carrying out individual sessions

EP	Teachers name	Carrying out individual sessions
Ecology	Musina U.Sh.	- 20013-2014 educational services: hourly lectures at the Turar Ryskulov New Economic University: Associate Professor; - 2014 - holding of the seminar "Environmental standardization" (Center for Forensic Expertise, KazNIISE, Almaty); - 2015 - educational services: lecturer FAS (Faculty of Advanced Studies) in KBTU; 2015-2016 - holding a seminar "Ecology, environmental protection, sustainable development" in Tashkent in the framework of the Samsung Innovation Service Academy project in Kazakhstan and Uzbekistan, CAREC; and etc.
Ecology	Zharkimbaeva G.B.	- training seminar on AutoCAD for oil companies (2013); - a training seminar for "Embanefit" on ecology ("green economy", "waste management", changes in the legislation of the Republic of Kazakhstan in the field of environmental protection) (2013 -2014).
Ecology	Ahmedova G.R.	- Conducting the seminar "Oil emulsions and fighting with them" in LLP "GBA Group" on 16-19.11.2015 under contract No. 2 of 16.11.2015, Almaty - Conducting the seminar "Environmental protection and industrial ecology in the oil and gas industry. Cleaning of oil storages from oil sludge. Cleaning of oil-contaminated soils " in LLP" Institute of Oil and Gas Engineering and Information Technologies KBTU "under the contract No. UI-72 dated 15.09.2015, Almaty. - Conducting a seminar on "Building an environmental management system at enterprises" at the "Personnel Development Center" Profi-Consulting "LLP on December 11-12, 2014 under contract No. 124-12-2014 of 04.11.2014, Almaty. - KNU - holding of the seminar "Environmental safety at uranium mining enterprises" on December 21-23, 2015.
Ecology	Musina U.Sh.	- 20013-2015 - consulting services for enterprises of Kazakhstan: AZSHS; UKTMC; ECE; the cut "Bogatyr"; "Aluminum of Kazakhstan", Kazmahranets, Baikonur, airports in Kazakhstan, etc. (commissioned by the State Property Committee); - 2013 - analysis of the environmental performance of enterprises in Kazakhstan, 1 hazard category (MEP RK).

To strengthen practical training in the field of Ecology specialization, on the basis of official letters, excursions to the leading enterprises of Almaty are planned such as: Kazakhstan Agency of Applied Ecology LLP; RSE SRC "Karysh-Ecology"; RSE "Kazgidromet" in Almaty; LLP "Kazphosphate" in Taraz; JSC «NC» Kazakhstan Temir Zholy».

Analytical part

Based on the results of the analysis, the EEC members came to the following conclusion:

Presented and confirmed by facts information about the types of practices and related aspects, identifies the basic skills acquired through training. The EP under consideration for undergraduate studies includes various types of practice: educational, industrial and pre-diploma, for magistracy: pedagogical research. However, the accredited departments inactive work on the dual method of training.

To increase the role of practical orientation of the EP, it is recommended to increase the share of practical classes at the specialization enterprises, increase the number of workshops to solve practical problems relevant to enterprises in the field of specialization.

Strengths / the best practice

Participation Teaching staff of the department "Biotechnology" in financed research

work, involving the student community, having effective results of activities. Research work.

Recommendations of EEC

1 Strengthen the practice-orientees of accredited educational programs taking into account the requirements of the labor market and the professional association of employers, including by increasing the time allocated for industrial practice on the basis of enterprises with the acquisition of related professions.

Conclusions of the EEC on criteria: strong-0, satisfactory-3, suggest improvements-2.

(VI) REVIEW OF STRONG SIDES / BEST PRACTICES

- The university has a published quality assurance policy that reflects the relationship between research, teaching and learning.
- Information collected and analyzed by the university within the framework of the EP, takes into account the level of academic achievement, student achievements and deductions, students' satisfaction with the implementation of the EP and the quality of education in the university, the availability of educational resources and support systems for students.
- The management of the EP helps to provide all the necessary information in the relevant fields of science.
- The presence of an information portal of in-house development that provides trainees, faculty and staff, the University Management with the necessary information on the activities of the university, information in the field of science and education of the teaching staff and staff.
- Presence of developed graduate models describing the learning outcomes and personal qualities.
- Consistency, transparency and objectivity of the mechanism for evaluating learning outcomes for each EP, including an appeal.
- The policy of forming a contingent of trainees in the context of the EP from receipt to release and ensuring the transparency of its procedures. Procedures regulating the life cycle of students (from admission to completion), identified, approved, published.
- Conducting a program of adaptation and support of foreign students.
- An objective and transparent personnel policy, which includes hiring, professional growth and development of personnel, ensuring the professional competence of the whole state.
- Correspondence of HR staff potential of the strategy of the university development and specificity of the educational program.
- Awareness of responsibility for their employees and providing them with favorable working conditions.
- Providing leadership of the EP with targeted actions to develop young teachers.
- Correspondence of information resources to the specifics of the EP, including library resources, including the fund of educational, methodological and scientific literature on general education, basic and profiling disciplines in paper and electronic media, periodicals in the context of the languages of instruction.
- Examination of the results of research, final works, dissertations on plagiarism.
- Compliance with safety requirements in the training process.
- Publication by the University in the framework of the EP information about the possibility of qualification assignment at the end of the EP.

(VII) REVIEW OF THE RECOMMENDATION FOR IMPROVING QUALITY

1. To include in the work plan of the department the issue of developing joint educational programs with foreign educational organizations, with the inclusion of items:
 - the inclusion of disciplines that have a research direction in the EP of joint educational programs;
 - implementation of programs of external academic mobility of students and teaching staff;
 - implementation of two-diploma education programs.
2. By the beginning of the new academic year 2018/19, draw up a plan and organize introductory courses for managers of the EP on planning the results of training, organizing the educational process for educational programs according to the TS and implementing the basic principles of the Bologna process.
3. To improve the mechanisms of design, management, internal quality assessment, expertise and monitoring of accredited EP taking into account risks.
4. To increase the number of bans for the study of the discipline "Environmental and regulatory documentation at the enterprise" for students of EP Ecology.
5. Consider the possibility of training students of the EP 3 cluster for professional certification.
6. To intensify the work on the annual updating of educational programs, with the publication of all the changes made on the site of the university, with the involvement of all stakeholders and documented.
7. By developing and introducing joint educational programs with higher education institutions in Kazakhstan, to increase the number of students pursuing internal academic mobility.
8. Strengthen the work on attracting graduates of accredited EP in the work of collegiate management bodies, including in the association of graduates.
9. Continue the work on the organization of continuing education programs for the faculty of the faculty
10. Develop a work plan for the accredited departments for the next 3 years to improve the level of foreign language proficiency in the teaching staff of the department.
11. To work out the mechanisms for organizing seminars on topical issues of the disciplines of educational programs with the involvement of specialists from corporate partners.
12. For accredited educational programs, develop a plan for implementing dual training for 2018-2021. Provide a comfortable temperature regime in educational buildings in the winter.
13. To provide wider accessibility to the public of information about TS (personal pages of management, TS, lists of scientific works, contact details).
14. Strengthen the practice-orientedness of accredited educational programs taking into account the requirements of the labor market and the professional association of employers, including by increasing the time allocated for industrial practice on the basis of enterprises with the acquisition of related professions.

(VIII) REVIEW OF RECOMMENDATIONS FOR THE DEVELOPMENT OF THE ORGANIZATION OF EDUCATION

1. To work out the mechanisms for organizing seminars on topical issues of the disciplines of educational programs with the involvement of specialists from corporate partners.
2. University management to consider the possibility of updating the material and technical base of the OP, including in the student hostel, as well as improving the state of the renovation of classrooms and laboratories.
3. Provide the enclosure with a dressing room.
4. Consider the possibility of equipping the entrance to the university building with additional access control turnstiles.

Annex 1. Scorecard «PARAMETERS OF THE SPECIALIZED PROFILE»

No.	No.	Criteria for evaluation	Position of the organization of education			
			Strong	Satisfactory the	Assumes improvement	Unsatisfactory
Standard "Management of the educational program"						
1	1	The university must have a published quality assurance policy.	+			
2	2	A quality assurance policy should reflect the relationship between research, teaching and learning.	+			
3	3	The university should demonstrate the development of a culture of quality assurance.		+		
4	4	Commitment to quality assurance should apply to any activities performed by contractors and partners (outsourcing), including in the implementation of joint / two-degree education and academic mobility.			+	
5	5	The management of the EP provides transparency in the development of an EP development plan for the analysis of its functioning, the real positioning of the institution and the focus of its activities on meeting the needs of the state, employers, stakeholders and trainees.		+		
6	6	The management of the EP demonstrates the functioning of the mechanisms for the formation and regular revision of the educational program development plan and monitoring of its implementation, assessing the achievement of the training objectives, meeting the needs of students, employers and society, making decisions aimed at the continuous improvement of educational solutions aimed at the continuous improvement of the educational program.			+	
7	7	The management of the EP should involve representatives of stakeholder groups, including employers, trainees and teachers, in forming an EP development plan.		+		
8	8	The management of the EP should demonstrate the individuality and uniqueness of the development plan for the EP, its coherence with national development priorities and the development strategy of the organization of education.		+		
9	9	The university should demonstrate a clear definition of those responsible for business processes within the framework of the EP, the unambiguous distribution of the		+		

		duties of the staff, the delineation of the function of collegial bodies.				
10	10	The management should provide evidence of transparency in the management of the educational program.		+		
11	11	The management should demonstrate the successful functioning of the internal quality assurance system of the EP, including its design, management and monitoring, their improvement, decision-making on the basis of facts.		+		
12	12	Management should implement risk management			+	
13	13	The management of the EP should demonstrate the participation of representatives of stakeholders (employers, teaching staff, students) in the collegial bodies of management of the educational program, as well as their representativeness in making decisions on the management of the educational program.		+		
14	14	The university should demonstrate the management of innovation within the framework of the EP, including the analysis and implementation of innovative proposals		+		
15	15	The management of the EP should demonstrate evidence of openness and accessibility for students, teachers, employers (official hours of reception on personal matters, e-mail communication, etc.).		+		
16	16	The management of the EP must pass through the programs of the management of education.		+		
17	17	The EP management should strive to ensure that the progress achieved since the last external quality assurance procedure is taken into account in preparation for the next procedure.		+		
Total by standard			2	12	3	0
Standard "Information Management and Reporting"						
18	1	The university should ensure the functioning of a system for collecting, analyzing and managing information based on the use of modern information and communication technologies and software.		+		
19	2	The EP management should demonstrate the systematic use of backward, adequate information to improve the internal quality assurance system.		+		
20	3	Within the framework of the EP there should be a system of regular reporting, reflecting all levels and structures, including an assessment of the effectiveness and effectiveness of the department and its departments, scientific research.		+		
21	4	The university should establish periodicity, forms and methods for evaluating the management of the EP, the activities of collegial bodies and structural units, senior management, the implementation of scientific projects.		+		

22	5	The university should demonstrate the definition of order and ensure the protection of information, including the identification of responsible persons for the reliability and timeliness of the analysis of information and the provision of data.		+		
23	6	An important factor is the involvement of trainees, workers and teachers in the processes of collecting, analyzing information, and also making decisions based on them		+		
24	7	The management of the EP should demonstrate the existence of a mechanism of communication with trainees, employees and other stakeholders, including the presence of conflict resolution mechanisms.		+		
25	8	The institution should provide a measure of the degree of satisfaction of the needs of the teaching staff, the staff trained in the EP and demonstrate evidence of correcting the errors found.		+		
26	9	The university should evaluate the effectiveness and effectiveness of activities, including in the context of the EP.		+		
		The information collected and analyzed by the University should take into account:		+		
27	10	Key performance indicators		+		
28	11	Dynamics of the contingent of students in the context of forms and species		+		
29	12	level of achievement, student achievement and deduction	+			
30	13	satisfaction of students with the implementation of the EP and the quality of education in the university	+			
31	14	Accessibility of educational resources and support systems for students	+			
32	15	employment and career growth of graduates		+		
33	16	Trainees, employees and teachers confirm documented consent to the processing of personal data		+		
34	17	The management of the EP should promote the provision of all the necessary information in the relevant fields of science	+			
Total by standard			4	13	0	0
Standard "Development and approval of the educational program"						
35	1	The university should define and document the procedures for the development of educational programs, their approval at the institutional level		+		
36	2	The management of the EP should ensure that the developed EP meets the established objectives, including the expected learning outcomes		+		

37	3	The management should demonstrate the availability of developed graduate models describing the results of training and personal qualities.	+			
38	4	The management of the EP should ensure that external evaluations of the EP are carried out.		+		
39	5	The qualification obtained at the conclusion of the EP shall be defined, clarified and correspond to a certain level of the NQF.		+		
40	6	The management should determine the impact of disciplines and professional practices on the formation of learning outcomes.		+		
41	7	An important factor is the possibility of preparing for professional certification			+	
42	8	The management of the EP should provide evidence of the participation of trainees, the staff and other stakeholders in the development of the EP, ensuring their quality.		+		
43	9	The complexity of EP should be clearly defined in Kazakhstan credits and ECTS	+			
44	10	The management should ensure that the contents of the academic disciplines and the results of the training are of a level of study (bachelor's, master's and doctoral studies).		+		
45	11	In the structure of the EP, various activities corresponding to the learning outcomes should be envisaged.		+		
46	12	An important factor is the availability of joint educational programs with foreign educational organizations.			+	
Total by standard			2	8	2	0
Standard "Continuous monitoring and periodic evaluation of the educational program"						
47	1	The institution should monitor 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 the continuous improvement of the EP.		+		
		Monitoring and periodic evaluation of EP should consider:				
48	2	The content of the programs in the light of the latest achievements of science in a specific discipline to ensure the relevance of the discipline being taught		+		
49	3	Changes in the needs of society and the professional environment		+		
50	4	Load, progress and graduation of students		+		
51	5	The effectiveness of evaluation procedures for students		+		
52	6	Expectations, needs and satisfaction of students learning by the EP		+		
53	7	The educational environment and support services and their correspondence to the objectives of the EP		+		
54	8	The university and the management of the EP should provide evidence of the participation of trainees,		+		

		employers and stakeholders in the revision of the EP				
55	9	All interested persons should be informed of any planned or undertaken actions in relation to the EP. All changes made to the EP shall be published.		+		
56	10	The management of the EP should ensure that the content and structure of the EP is reviewed, taking into account changes in the labor market, the requirements of employers and the social demand of the society.		+		
Total by standard			0	10	0	0
Standard " Student-centered learning, teaching and assessment of academic performance"						
57	1	The EP management should ensure respect and attention to different groups of learners and their needs, providing them with flexible learning paths.		+		
58	2	The EP management should ensure the use of various forms and methods of teaching and learning.		+		
59	3	An important factor is the availability of own research in the field of teaching methodology and evaluation of learning outcomes.		+		
60	4	The EP management should demonstrate the availability of a feedback system on the use of various methods of training and knowledge control.		+		
61	5	The EP management should demonstrate support for the autonomy of trainees with simultaneous guidance and assistance from the teacher.		+		
62	6	The EP management should demonstrate the existence of a procedure for responding to complaints from students		+		
63	7	The institution should ensure the consistency, transparency and objectivity of the evaluation mechanism for each training program, including an appeal	+			
64	8	The university should ensure that the procedures for assessing the learning outcomes of the students of the EP are consistent with the planned learning outcomes and program objectives. Criteria and evaluation methods within the framework of the EP should be published in advance		+		
65	9	In the university there should be mechanisms for ensuring that each graduate of each year learns the learning outcomes and ensures the completeness of their formation		+		
66	10	Evaluators should have modern methods for evaluating learning outcomes and regularly upgrade their qualifications		+		
Total by standard			1	9	0	0
Standard "Learners"						
67	1	The university should demonstrate the policy of forming a contingent of trainees in the context of the EP from admission to release and ensure the transparency of its procedures. Procedures regulating the life cycle of trainees	+			

		(from admission to completion) should be defined, approved, published				
68	2	The management of the EP should demonstrate the implementation of the program of adaptation and support of foreign students.	+			
69	3	Compliance with the Lisbon Recognition Convention .		+		
70	4	The university should co-operate with other educational organizations and national centers "European Network of National Information Centers for Academic Recognition and Mobility / National Academic Recognition Information Centers" ENIC / NARIC with a view to ensuring comparable recognition of qualifications.		+		
71	5	The management should demonstrate the availability and application of a mechanism to recognize the results of academic mobility of students, as well as the results of additional, formal and informal training.		+		
72	6	The university should provide an opportunity for external and internal mobility of students, as well as assist them in obtaining external grants for training.			+	
73	7	The management of the EP should make the maximum amount of effort to provide practice-based practices, facilitate the employment of graduates, and maintain communication with them.		+		
74	8	The university should provide the graduates with documents confirming the received qualification, including the results of training achieved, as well as the context, content and status of the education received and evidence of its completion.	+			
75	9	An important factor is the monitoring of the employment and professional activities of the graduates of the EP.		+		
76	10	The EP leadership should actively encourage students to self-education and development outside the main program (extracurricular activities).		+		
77	11	An important factor is the existing association / association of alumni.			+	
78	12	An important factor is the existence of a mechanism for supporting gifted students.		+		
Total by standard			3	7	2	0
Standard "Teaching staff"						
79	1	The university should have an objective and transparent personnel policy, including an EP, which includes hiring, professional growth and staff development, which ensures the professional competence of the entire state.	+			
80	2	The university should demonstrate the conformity of the personnel potential of the teachers with the development strategy of the university and the specifics of the educational program	+			

81	3	The management of the EP should demonstrate the awareness of responsibility for its employees and the provision of favorable working conditions for them.	+			
82	4	The management of the EP should demonstrate the changing role of the teacher in connection with the transition to student-centered learning		+		
83	5	The university should determine the contribution of the teachers to the implementation of the strategy for the development of the university and other strategic documents.		+		
84	6	The university should provide an opportunity for career growth and professional development of the teachers EP.		+		
85	7	The management of the EP should involve practitioners in the relevant sectors in the teaching.		+		
86	8	The university should demonstrate the motivation for the professional and personal development of the teachers of the EP, including encouraging both the integration of scientific activities and education, and the application of innovative teaching methods.	+			
87	9	An important factor is the use of teachers for information and communication technologies in the educational process (for example, online learning, e-portfolio, MEP, etc.)		+		
88	10	An important factor is the development of academic mobility within the framework of the EP, attracting the best foreign and domestic teachers.		+		
89	11	An important factor is the participation of teachers in the life of society (the role of teaching staff in the education system, the development of science, the region, the creation of a cultural environment, participation in exhibitions, creative competitions, charity programs, etc.).		+		
90	12	The university should have an objective and transparent personnel policy, including an EP, which includes hiring, professional growth and staff development, which ensures the professional competence of the entire state.		+		

Total by standard			4	8	0	0
Standard "Educational resources and student support systems"						
91	1.	The management of the EP should demonstrate the residual material, financial and human resources.			+	
92	2.	The EP management should demonstrate the nature of procedures for supporting various groups of learners, including information and counseling		+		
		The management of the EP should demonstrate with the correspondence of information resources to the specifics of the EP, including compliance:				
93	3.	technological support of students and teaching staff in accordance with the programs (for example, online training, modeling, databases, data analysis programs);		+		
94	4.	library resources, including the fund of educational, methodological and scientific literature on general education, basic and profiling disciplines in paper and electronic media, periodicals in the context of the languages of instruction;	+			
95	5.	examination of the results of research, final works, dissertations on plagiarism;	+			
96	6.	functioning of Wi-Fi in the territory of the organization of education		+		
97	7.	The university should strive to ensure that the educational equipment and software used for the development of educational programs are similar to those used in the relevant sectors.		+		
98	8.	The institution must ensure that it meets safety requirements in the learning process.	+			
99	9.	The university should strive to take into account the needs of different groups of students in the context of the EP (adults, working, foreign students, as well as students with disabilities).		+		
Total by standard			3	5	1	0
Standard "Public Awareness"						

		The university publishes in the EP framework accurate, objective, up-to-date information that should include:				
100	1.	Implemented programs, indicating the expected results;		+		
101	2.	Information on the possibility of assigning qualifications at the end of the EP;	+			
102	3.	Information on teaching, training, evaluation procedures;		+		
103	4.	Information on passing scores and educational opportunities provided to students;		+		
104	5.	Information on job opportunities		+		
105	6.	The management of the EP uses a variety of ways to disseminate information, including the media, information networks to inform the general public and stakeholders.		+		
106	7.	Informing the public should include support and explanation of national development programs of the country and the system of higher and postgraduate education		+		
107	8.	The university should publish audited financial statements on its own web resource, including in the context of educational programs.		+		
108	9.	The university should publish on its own web resource information characterizing the university as a whole in the context of educational programs.		+		
109	10.	An important factor is the availability of adequate and objective information about the teachers EP, in the context of personalities.			+	
110	11.	An important factor is informing the public about cooperation and interaction with partners within the		+		

		framework of the EP, including with scientific / consulting organizations, business partners and educational organizations;				
11 1	12.	The university should place information and links to external resources based on the results of external evaluation procedures;		+		
11 2	13.	An important factor is the participation of the EP in a variety of external evaluation procedures.		+		
Total by standard			1	11	1	0
Standards in the context of individual specialties						
NATURAL SCIENCES						
		Educational programs in the areas of "Natural sciences", "Engineering sciences and technologies", such as "Mathematics", "Physics", "Information systems", etc., should meet the following requirements:				
11 3	1.	In order to familiarize students with the professional environment and relevant issues in the field of specialization, as well as to acquire skills on the basis of theoretical training, the education program should include disciplines and activities aimed at obtaining practical experience and skills in the specialty in general and in the relevant disciplines in particular, in t.ch: - excursions to enterprises in the field of specialization (factories, workshops, research institutes, laboratories, training facilities, etc.), - holding separate classes or whole disciplines at the enterprise of specialization, - Conducting seminars to solve practical problems relevant to enterprises in the field of specialization, etc.			+	
11 4	2.	Teaching staff involved in the education program should include full-time teachers who have a long-term experience of working as a staff member at enterprises in the field of specialization of the education program.		+		
11 5	3.	The content of all disciplines 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.		+		
11 6	4.	The EP management should provide measures to strengthen practical training in the field of specialization.			+	
11 7	5.	The management of the EP should ensure the training of students in the field of application of modern information technologies.		+		
Total by standard			0	3	2	0

	TOTAL	20	86	11	0
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