«АККРЕДИТТЕУ ЖӘНЕ РЕЙТИНГТІҢ ТӘУЕЛСІЗ АГЕНТТІГІ» КЕМ

НУ «НЕЗАВИСИМОЕ АГЕНТСТВО АККРЕДИТАЦИИ И РЕЙТИНГА»

INDEPENDENT AGENCY FOR ACCREDITATION AND RATING

REPORT

on the results of the work of the External expert commission
on the evaluation of educational programs

6B06107 Mathematical and Computational Sciences,
6B07101 Industrial Internet of Things, 6B07102 Electronic Engineering

ASTANA IT UNIVERSITY LLP

for compliance with the requirements of the standards of primary
specialized accreditation (EX-ANTE) of higher and
(or) postgraduate education

Date of visit: from 17 to 19 April 2024

INDEPENDENT AGENCY FOR ACCREDITATION AND RATING
External Review Committee

Addressed to
Accreditation
IAAR Council

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Astana **April 19 2024**

CONTENT

(I) LIST OF NOTATIONS AND ABBREVIATIONS

AC	Academic calendar
AIS	Automatic Information System
BD	Basic Disciplines
HAC	Higher Attestation Commission
EW	Educational work
UNIVERSITY	Higher education institution
State Educational Standards	State General Educational Standard of Education
DAD	Department of Academic Activities
DLT	Distance Learning Technology
DP/DT	Diploma project/thesis
FC	Final control
ICT	Information and communication technology
IT	Information Technology
ISP	Individual Study Plan
CTE	Credit technology of education
CED	Catalogue of Elective Disciplines
MES	Ministry of Education and Science
NIR	Research work
SRW	Student's research work
DIC	Department of International Cooperation
QAD	Quality Assurance Department
GED	General Education Disciplines
EP	Educational program
SD	Specialized disciplines
RSTL	Republican Scientific and Technical Library
BC	Boundary control
WC	Working curriculum
QMS	Quality Management System
SSS	Student Scientific Society
IWS	Independent work of students
IWSP	Independent work of students with a teacher
SC	Standard Curriculum
AC	Academic Council
ECTS	European Credit Transfer System
AC	Academic Committee

(II) INTRODUCTION

In accordance with the order No 60-24-OD dated 02/05/2024 of the General Director of the Independent Agency for Accreditation and Rating, from April 17 to April 19, 2024, an external expert commission assessed the compliance of educational programs 6B06107 Mathematical and Computational Sciences, 6B07101 Industrial Internet of Things, 6B07102 Electronic Engineering, developed and implemented by Astana IT University LLP for compliance with the standards and guidelines for specialized accreditation of higher and higher (or) postgraduate education.

The report of the External Expert Commission (EEC) contains an assessment of educational programs 6B06107 Mathematical and Computational Sciences, 6B07101 Industrial Internet of Things, 6B07102 Electronic Engineering according to the criteria of standards and IAAR guidelines, recommendations of the EEC for further improvement of educational programs and their profile parameters.

Composition of the IAAR EEC:

Chairman of the EEC – Andrey Alexandrovich Bratsikhin, Doctor of Technical Sciences, Rector of the Izhevsk State Agricultural Academy (Izhevsk, Udmurt Republic, Russian Federation); *Off-line participation*

IAAR expert – Nastasenko Veaceslav, PhD, Associate Professor, Technical University of Moldova (Chisinau, Moldova); *Off-line participation*

IAAR Expert – Andrey Valerievich Tamyarov, Candidate of Technical Sciences, Associate Professor, Ulyanovsk State Technical University (Ulyanovsk, Russian Federation); *On-line participation*

IAAR expert – Urmashev Baidaulet Amantayevich, Candidate of Physical and Mathematical Sciences, Associate Professor, Al-Farabi Kazakh National University (Almaty); *Off-line participation*

IAAR Expert – Alexandra Olegovna Potapenko, PhD, Associate Professor, Toraigyrov University (Pavlodar); *Off-line participation*

IAAR expert, student - Rakhmetov Artur Armanuly, 2nd year student of the EP Information Technologies of S. Seifullin Kazakh Agrotechnical Research University (Astana); *Off-line participation*

IAAR expert, student – Abdibekov Gaziz Zhalgasbayevich, 2nd year master's student EP 7M01503 - Informatics of NJSC "Aktobe Regional University named after K. Zhubanov" (Aktobe); *On-line participation;*

IAAR EEC Coordinator – Dinara Bekenova, IAAR Project Manager (Astana); *Off-line participation*

IAAR EEC Coordinator – Bagdat Medetov, Head of the Legal Department of IAAR (Astana); *Off-line participation*

IAAR EEC Coordinator – Zhulduz Auezkhanova, IAAR Post-Accreditation Monitoring Project Manager (Astana); *Off-line participation*

(III) INTRODUCTION OF THE EDUCATIONAL ORGANIZATION

Astana IT University was opened in 2019 as part of the implementation of the state program "Digital Kazakhstan" for the development of human capital in the field of higher and postgraduate education.

Educational activities are carried out on the basis of a general license No KZ67AA00019559 dated 12.04.2019, issued by the Committee for Control in the Field of Education and Science of the Ministry of Education and Science of the Republic of Kazakhstan (https://astanait.edu.kz/).

The following programs have been submitted for accreditation: EP 6B06107 Mathematical and Computational Sciences (primary accreditation), 6B07101 Industrial Internet of Things (primary accreditation), 6B07102 Electronic Engineering (primary accreditation);

Material base of the university

- 3 educational buildings (total area - 37.6 thousand m2; useful - 21.2 thousand m2, including educational - 18 thousand m2);
- 3 student accommodation for 450 places;
- 3 houses for teaching staff and employees;
- 5 modern educational and scientific laboratories FabLAB, Cisco, Huawei, Kaspersky, IPMA;
- 6 lecture halls, 63 classrooms (all classrooms are equipped with interactive projectors, computer equipment and audio-video systems);
- 20 innovative computer laboratories;
- 10 offices for startups;
- modern assembly hall for 450 seats;
- Electronic reading room for 50 seats;
- sports and gyms.
- Media center with television and radio broadcasting studios;
- a health center equipped with modern equipment and staffed by leading medical specialists;
- student canteen for 250 seats;
- corporate computer network;
- 250 Wi-Fi hotspots with free internet access;
- 1215 units of computers;
- IP telephony with a virtual PBX (120 IP phones).

The mission of the university is to train highly qualified personnel and commercialize research for the ICT sector as drivers of Kazakhstan's development.

Vision of the university - Astana IT University is a leader in innovative continuous IT education and science with stable academic traditions and high social responsibility.

Strategic goals:

- Building an effective training system in the field of IT technologies and related areas of knowledge that meets the needs of the state;
- Integration of scientific research and the educational process in the field of ICT and related fields;
- Development of the personality of a future specialist with high social and civic responsibility;
- Development of corporate governance with high responsibility and competitiveness of all university employees;
- Formation of a Smart Campus and expansion of the university infrastructure.

The University provides educational services of higher and postgraduate education in accordance with the Classifier of Areas of Training with Higher and Postgraduate Education, approved by the Order of the Minister of Education and Science of the Republic of Kazakhstan dated October 13, 2018 No 569 and the State Compulsory Standards of Higher and Postgraduate

Education of the Republic of Kazakhstan, approved by the Order of the Minister of Education and Science of the Republic of Kazakhstan dated October 31, 2018 No 604.

Personnel training is carried out according to the three-level model "Bachelor-Master-PhD Doctor" in accordance with the Law of the Republic of Kazakhstan "On Education", the Bologna Declaration and other international documents in the field of education.

In order to form the professional competence of future specialists in accordance with the National Qualifications Framework, agreed with the Comprehensive Qualifications Framework in the European Educational Area, industry qualifications frameworks and professional standards, the university implements modular educational programs, a distinctive feature of which is the ability to build an individual educational trajectory, take into account personal needs and capabilities of students.

In the information space for a wide range of users, the university is represented through the official information website with the address https://astanait.edu.kz.

Currently, the University trains personnel in 15 bachelor's degree programs in the context of 4 areas of training, 6 master's degree programs, 2 doctoral educational programs included in the Register of Educational Programs of Higher and Postgraduate Education.

In 2020, the university passed institutional and specialized (program) accreditation in the National Agency for Accreditation and Rating (IAAR) for a period of 5 years. In 2022, all master's programs for a period of 5 years underwent specialized accreditation.

The total contingent is 4952 undergraduate students, including 4546 on an educational grant, 406 on a paid basis, 33 foreign students; master's programs: 405 people, including 392 on an educational grant, 13 on a paid basis; doctoral studies – 5 people studying within the framework of an educational grant.

The educational activities of the university are organized in accordance with the Academic Policy, which is a system of measures, rules and procedures for planning and managing educational activities and the effective organization of the educational process aimed at improving the quality of education and implementing student-centered learning.

The qualitative and quantitative composition of the teaching staff of the EP 6B06107 Mathematical and Computational Sciences, 6B07101 Industrial Internet of Things, 6B07102 Electronic Engineering for the 2023–2024 academic year is 45% of the degree in bachelor's programs.

The form of organization of the academic period (theoretical training) is a trimester lasting 10 weeks (three trimesters are planned within each academic year, the total duration of study within the framework of the bachelor's degree is 3 years). For the entire period of study, students master 240 academic credits. The language of instruction is English. Modular educational programs, an academic calendar, curricula in the areas of training, and a schedule of academic classes for the current academic year have been developed and approved.

To organize the educational process, syllabuses have been developed in all academic disciplines in English; electronic forms of organization of the educational process have been expanded, in particular, network communication within the framework of individual and group interaction; methodological materials and tasks are also sent online, Moodle and Platonus platforms are used. Within the framework of the classes, ICT is actively used, there are multimedia developments of teachers in all disciplines taught, and there is an effective practice of using electronic resources in the educational process.

In order to strengthen the practical orientation of the implementation of educational programs, specialists from the labor market and employers are involved in conducting classes, as well as electronic and online database resources are used to strengthen practical skills. Scientific databases are actively used: Web of Science, Scopus, Springer, Science Direct, various educational platforms: Udemy, Udacity, Courcera, edx.

The university has concluded over 150 agreements on professional practice at enterprises, including with such enterprises as Transtelecom JSC, National Information Technologies JSC, the Ministry of Digital Development, Innovation and Aerospace Industry of the Republic of

Kazakhstan (MDDIAI), Astana International Financial Center, NC KAZAKHSTAN GARYSH SAPARY JSC, etc.

Graduates of the world's leading foreign universities work at the university, including: University of Southern California (USA), Boston University (USA), The University of Chicago (USA), University College London (UK), Imperial College London (UK), Robert Gordon University (UK), Humboldt University (Berlin, Germany), University of Bristol (UK), The University of Sheffield (UK).

In 2022, the first graduation was organized: 523 students, of which 86 entered the master's program, 385 were employed (employment rate - 92%). In 2023 - the second graduation: 1111 students, including 1082 bachelors, 29 masters (employment rate - 96%).

The University carries out research activities on the basis of the certificate of accreditation as a subject of scientific and (or) scientific and technical activities No005956 dated December 11, 2019.

Scientific and research activities are aimed at the development of fundamental science and applied research in the main areas recommended by the Higher Scientific and Technical Commission under the Government of the Republic of Kazakhstan: information, telecommunication technologies, national security and defense, scientific foundations of "Mangilik El" (education of the XXI century, fundamental and applied research in the field of humanities, etc.):

One of the criteria for the effectiveness of scientific activities of scientists and employees is publication activity, especially in high-ranking journals included in the Web of Science and Scopus databases: the number of publications over the past 5 years in the Web of Science database is 97, in the Scopus database - 279.

Currently, AITU publishes the Scientific Journal of Astana IT University in the following areas:

- Information security;
- IT in education and training;
- Information and communication technologies (ICT);
- IT in Management, Management, Finance and Economics;
- Project management.

Since 2022, the Scientific Journal of Astana IT University has been included in the database of journals recommended by the Committee for Quality Assurance in Education and Science of the Ministry of Education and Science of the Republic of Kazakhstan in two areas: ICT and IT in Education and Training

One of the goals is to attract young people to science. The University has a Council of Young Scientists, Student Scientific Societies, the main purpose of which is to promote the development of creative scientific activity of young scientists and students.

Scientific and innovative centers have been opened at the University, the purpose of which is to concentrate around their areas of scientific research and training of scientific highly qualified personnel:

1) Research Center "Smart City" - conducts research in the following areas: housing and communal services, public transport, air quality, sustainable development of the city;

2) R&D Center "Industry 4.0" - conducts research in the following areas: research, optimization and modeling of intelligent industrial solutions;

3) Research Center "Big Data and Blockchain Technologies" - conducts research in the following areas: financial technologies, blockchain, digital government;

4) R&D Center "AgroTech" – conducts research in the following areas: remote sensing, precision agriculture and animal husbandry, UAVs and robotics, digital field maps;

5) Research Center "EdTech" – conducts research in the following areas: digital university, IT education, digital pedagogy, educational analytics, continuing education.

Since 2021, the University has been organizing and holding an international conference in a mixed format IEEE 2021 IEEE International Conference on Smart Information Systems and

Technologies. In 2023, more than 1000 authors from Kazakhstan, near and far abroad (17 participating countries) took part in the conference. Published and indexed in SCOPUS database 106 articles.

Since 2021, an agreement on the activities of the University Alliance of Science and Technology Alliance between Astana IT University, the University of International Business, the Almaty University of Energy and Telecommunications named after Gumarbek Daukeyev, the Kazakh-British Technical University, and the International University of Information Technologies has been implemented. The agreement provides for the implementation of interuniversity interdisciplinary educational, research and innovative projects aimed at jointly solving urgent problems of the development of the economy and social sphere of the Republic of Kazakhstan.

Within the framework of the memorandum of understanding and cooperation dated October 11, 2019, signed between Astana IT University and Cisco, a training laboratory with a hardware and software solution for Cisco Webex distance learning was opened at the university. Within the framework of the memorandum of understanding and cooperation dated September 27, 2019, signed between Astana IT University and Huawei, the Huawei ICT Academy was opened. Within the framework of the memorandum of understanding and cooperation signed between Astana IT University and Kaspersky Lab, an authorized training center has been opened.

The ATAMEKEN SPACE co-working business was opened (together with Atameken NCE).

The university is doing some work to provide a system of continuous IT education, organizing long-term and short-term courses aimed at training, retraining and advanced training of personnel to meet the needs of the labor market.

In order to create conditions for admission to the University for students of the final grades of secondary schools, the Regulations on the organization of preparatory educational courses of the "Foundation" program have been developed and approved by the Academic Council. A database of highly qualified specialists has been formed - 15 people.

As part of the training of competitive and professional top managers for business management from a strategic position, possessing knowledge, interactive methods and skills based on new high technologies of administrative and production processes in business structures, as well as capable of generating innovative changes in modern management in the context of business globalization, a partnership program Digital Executive MBA with a Russian university - Institution of Additional Professional Education was developed "IMISP Business School" in the format of double-degree education.

The educational activities of Astana IT University are an important part of the educational process and are aimed at the formation of patriotism, citizenship, internationalism, high morality and ethics, legal culture, interfaith tolerance, as well as the development of diverse interests and abilities of students.

Educational work is carried out on the basis of the values of Kazakhstan's identity and unity, the spiritual and moral values of the Rukhani Zhangyru program for the modernization of public consciousness, the formation of a culture of a healthy lifestyle and "zero tolerance" for corruption.

A special place is given to the development of high moral qualities in students, the formation of a sense of pride in the university, devotion to the traditions of the university.

In order to create an environment for interaction and communication, as well as the development of corporate culture, the University actively uses the capabilities of modern information and communication technologies: a social site that allows students to hold online forums, establish interaction with the University administration, and receive information on academic issues.

Student self-government is an element of the general system of management of the educational process at the university and involves the maximum consideration of the interests and needs of students based on the study of their public opinion.

In order to increase the social activity of students, the university has 50 interest clubs. The activities of student clubs are aimed at organizing and conducting cultural events that contribute to the disclosure of creative potential and the spiritual and moral education of students.

One of the tasks of the university is the development and expansion of international relations with higher educational institutions, scientific organizations of near and far abroad, with leading transnational companies and other enterprises in the field of education, science and innovation.

More than 50 memorandums of understanding and cooperation with foreign academic partners have been concluded.

The university invited foreign specialists to implement the internationalization program and conduct training sessions from the countries of near and far abroad.

In accordance with paragraphs 26-23 of paragraph 2 of Article 22 of the Law of the Republic of Kazakhstan "On Defense and the Armed Forces", by the joint order of the Ministry of Defense and the Ministry of Education and Science of the Republic of Kazakhstan No21, a military department has been operating at the University since January 20, 2020.

(IV) DESCRIPTION OF THE PREVIOUS ACCREDITATION PROCEDURE

Educational programs 6B06107 Mathematical and Computational Sciences, 6B07101 Industrial Internet of Things, 6B07102 Electronic Engineering of Astana IT University LLP are undergoing primary accreditation for compliance with the standards of primary specialized accreditation of an educational program of higher and (or) postgraduate education (Ex-ante).

(V) DESCRIPTION OF THE EEC VISIT

The work of the EEC was carried out on the basis of the approved Visit Program of the Expert Commission for Specialized Accreditation of Educational Programs to Astana IT University LLP in the period from April 17 to April 19, 2024.

In order to coordinate the work of the EEC, on 15.04.2024, an orientation meeting was held, during which powers were distributed among the members of the commission, the schedule of the visit was clarified, and an agreement was reached on the choice of examination methods.

In order to obtain objective information about the quality of the cluster's educational programmes and the entire infrastructure of the university, as well as to clarify the content of the self-assessment report, meetings were held with the Rector, Vice-Rectors for Areas of Activity, Heads of Structural Divisions, Dean of the Faculty, Directors of Departments, Teaching Staff, and EP students. A total of 114 representatives of the university and its partners took part in the meetings (Table 1).

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

Category of participants	Quantity
Chairman of the Board-Rector	1
Vice-Rectors	4
Heads of structural divisions	16
Dean of the Faculty	1
Directors of EP departments	4
Teachers*	23
Studying	65
Altogether	114

During the combined excursion (online and offline), the EEC members got acquainted with the state of the material and technical base, visited the university premises, educational, laboratory and research facilities. Experts inspected departments and centers, a library, a dormitory, a first-aid post, a gym, a canteen, and the main classrooms for accredited EPs.

At the online meeting of the IAAR EEC with the target groups of KATIU, the mechanisms for implementing the university's policy were clarified and certain data were concretized.

For the period of accreditation, the following classes were attended: Analog electronics (lecture), Circuit Theory (laboratory work). In the course of laboratory work on the discipline Circuit Theory, the teacher Ilyas Tursynbek named the goal and objectives of the laboratory work in accordance with the syllabus of the discipline, analyzed two schemes for calculating the parameters of the circuit and formulated the main results that students should present in the report. According to the approved schedule, the class was held in the Electronics Laboratory. The classroom is equipped with a PC, as well as HEE-5A Electricity/Electronics laboratory stands. Hampden includes sets of experimental components, mock-up equipment, connecting wires, power supplies, counters, laboratory tables and manuals for students to conduct experiments.

(VI) COMPLIANCE WITH SPECIALIZED ACCREDITATION STANDARDS

6.1. Standard "Management of the Educational Program"

- *The organization of higher and (or) postgraduate education must have a published quality assurance policy. Quality assurance policies should reflect the link between research, teaching and learning.*
- *The organization of higher and (or) postgraduate education must demonstrate the development of a culture of quality assurance, including in the context of EP.*
- *Commitment to quality assurance should apply to any activities performed by contractors and partners (outsourcing), including the implementation of joint/double-degree education and academic mobility.*
- *The management of the EP demonstrates its readiness to ensure transparency in the development of the EP development plan based on the analysis of its functioning, the real positioning of the EP and the focus of its activities on meeting the needs of the state, employers, students and other stakeholders.*
- *The management of the EP demonstrates the functioning of the mechanisms for the formation and regular review of the EP development plan and monitoring its implementation, assessing the achievement of learning goals, meeting the needs of students, employers and society, and making decisions aimed at continuous improvement of the EP.*
- *The management of the SE should involve representatives of stakeholder groups, including employers, students and faculty, in the formation of a plan for the development of the SE.*
- *The management of the EP must demonstrate the individuality and uniqueness of the EP development plan, its consistency with national priorities and the development strategy of the organization of higher and (or) postgraduate education.*
- *The organization of higher and (or) postgraduate education should demonstrate a clear definition of those responsible for business processes within the EP, an unambiguous distribution of staff responsibilities, and the delineation of functions of collegial bodies.*
- *The management of the EP must provide evidence of the transparency of the educational program management system.*
- *The management of the SOE must demonstrate the existence of an internal quality assurance system for the SO, including its design, management and monitoring, their improvement, and fact-based decision-making.*
- *The management of the SE should manage risks, including within the framework of the SE undergoing initial accreditation, as well as demonstrate a system of measures aimed at reducing the degree of risk.*
- *The management of the programme should ensure the participation of representatives of employers, teaching staff, students and other stakeholders in the composition of the collegial management bodies of the educational programme, as well as their representativeness in decision-making on the management of the educational programme.*
- *The PO should demonstrate innovation management within the OP, including the analysis and implementation of innovative proposals.*
- *The EP management must demonstrate evidence of readiness for openness and accessibility for students, faculty, employers, and other stakeholders.*
- *The management of the EP must be trained in education management programs.*

Evidence

Educational programs 6B06107 Mathematical and Computational Sciences, 6B07101 Industrial Internet of Things, 6B07102 Electronic Engineering submitted for accreditation were studied by EEC members.

IAAR experts note that the implementation and development of accredited educational programs are determined by the mission, policy in the field of quality,

The Quality Assurance Policy of the educational process in Astana IT University LLP (AITU) is maintained in accordance with the Quality Assurance Policy, approved (First Edition of 28.12.2019, Second Edition of October 27, 2022) at the meeting of the Academic Council (https://astanait.edu.kz/uchenyy-sovet-astana-it-university/). It reflects the general approaches, key principles and main mechanisms established in AITU to ensure quality and develop a culture of continuous quality improvement. In order to guarantee the effectiveness of the Internal Quality Assurance System, the University management analyzes it in the following areas of activity: the effectiveness of achieving goals for the current academic year; organization of internal inspections and inspection audits; analysis of consumer requirements; process analysis; overall assessment of performance.

The AITU Internal Quality Assurance System is based on the recommendations of ENQA, the criteria for external assessment of universities in the National System for Assessing the Quality

of Education. The policy is part of strategic management and is considered together with other documents: mission, strategic plan, academic policy, standards of internal quality assurance of the university. The AITU Internal Quality Assurance System is a set of interrelated and interacting Policies, standards, tools and methods for managing the quality of education. The elements of the internal quality assurance system are the Quality Assurance Policy; values and principles of quality assurance; internal quality assurance standards; Quality assurance mechanisms and tools (indicators and criteria) and quality assurance system management.

The policy is implemented through internal quality assurance processes and standards, which involve the participation of all departments of the university. The policy and standards have official status and are available to the general public on the university's website https://astanait.edu.kz/.

The development and maintenance of a quality culture is ensured through:

- development and implementation of a quality assurance system;
- Standards and guidelines for internal quality assurance based on ESG standards;
- Internal quality assurance policy;
- internal quality assurance mechanisms and procedures;
- participation of the university in the institutional and program ranking;
- application of internal quality assessment procedures (intra-university KPI system, internal assessment of the competence of teaching staff, intra-university quality control of training sessions);
- a system for monitoring stakeholder satisfaction.

The AITU internal quality assurance system is regulated by 10 approved standards. In addition to standards, the quality assurance system is supported by the developed internal regulatory documents. Traditional management mechanisms that regulate the relationship of employees throughout the management vertical are the Internal Labor Regulations adopted at the university, which reflect the requirements of corporate culture, job subordination, work regulations, tolerance, and academic honesty.

Management of educational programs as separate objects includes:

- analysis of the demand for educational programs in the market of educational services and labor in the course of the admission campaign and career guidance;
- development of new statistical forms and modules in educational programs;
- analysis of academic performance, forms of exams and other indicators for educational programs;
- Presentation of comprehensive information on each educational program on the university's website;
- inclusion of issues in certain areas in the plan of meetings of the Academic Council;
- orientation of the university to specialized accreditation of the educational program.

The implementation and management of educational programs takes place through the organization of processes and is presented as a network of interrelated processes necessary for the implementation of the EP development strategy. Process management is carried out due to: a clear distribution of responsibility for processes; the presence of IRI containing the methods of carrying out activities. All external and internal regulatory documents, including decisions of collegial bodies (the Academic Council and the Academic Council) are posted on the university's website and are available to all users of the corporate network. Documented procedures, criteria and methods necessary to ensure the effectiveness, implementation and management of these processes have been developed. The head of the department is responsible for the implementation of business processes, including the following processes: management obligations; development of a quality policy; planning of quality and planning goals; distribution of responsibility and authority; ensuring the processes of information exchange.

Internal assessment methods:

- Performance assessment (KPI) of employees and faculty;
- Conducting internal audits of the quality management system;
- checking the degree of readiness of the EP for the new academic year;

- assessment of the quality of the educational process;
- assessment of students' educational achievements;
- Questioning of employers, students, employees, teaching staff.

In 2023, according to the results of the Atameken ranking, AITU is in the top 10 universities of the Republic of Kazakhstan and ranks 6th (https://newtimes.kz/obshchestvo/184962-opublikovan-ezhegodnyi-reiting-kazakhstanskikh universitetov?fbclid=IwAR21anV8Zx0pvSXj1cwj9PNyYb6NMvtwmbJppI-ozAbCAL5cVpIssaQ0648).

Educational activities within the framework of the EP are implemented on the basis of a plan for the development of educational programs aimed at providing sectors of the economy with competitive personnel with professional, communicative and social competencies and a stable system of moral and personal values that are in demand in the domestic and foreign labor market. The strategic priorities of the university are aimed at achieving international recognition. According to the mission and vision of the university, the purpose of accredited programs is to meet the needs of the republic for highly qualified IT specialists with fundamental professional knowledge, modern innovative methods and the necessary competencies for the development and formation of the intellectual potential of the Republic of Kazakhstan. EP development plans are formed on the basis of the AITU strategic development plan, discussed and approved at a meeting of collegial bodies. (Minutes CS No 6 dated 30.12.21; No 9 dated 28.02.22; No 10 dated 31.03.22).

The Development Plans of the EP 6B06107 Mathematical and Computational Sciences, 6B07101 Industrial Internet of Things, 6B07102 Electronic Engineering were amended and supplemented in accordance with the updated AITU Development Strategy for 2020-2025 (Stage 2). The development plans were developed based on the analysis of the functioning and real positioning of AITU as a specialized university, taking into account the human and scientific potential of the faculty and the demand for IT specialists in the region (Appendix 2).

Plans for the development of bachelor's and master's degree programs are posted on the EP web-page and are available to all interested parties.

EP 6B06107 Mathematical and Computational Sciences (https://astanait.edu.kz/mathematical-computational-science-3/);

OP 6B07101 Industrial Internet of Things (https://astanait.edu.kz/industrial-internet-of-things/);

OP 6B07102 Electronic Engineering (https://astanait.edu.kz/en/electronic-engineering-2/).

Each EP undergoes an external examination by employers, and an internal assessment is carried out during the discussion of the EP at departmental meetings, at meetings of the Academic Committee, and the AITU CMC.

Representatives of the business community take part in the development of the EP, which participates in the discussion of current competencies and learning outcomes. The discussion is held within the framework of meetings of academic committees, round tables with employers. Expert opinions are presented: on EP 6B06107 Mathematical and Computational Sciences represented by Daniyar Nurseitov, Expert of KMG Engineering LLP; Donming Wei, Professor, Nazarbayev University; Zhenisgul Rakhmetullina, Dean of the International School of Engineering, D. Serikbayev EKSTU; according to EP 6B07101 Industrial Internet of Things represented by Kulniyazova K.S., ENU L.N. Gumilev, Mukhamedrakhimova A.R., LLP "Energy of the East", Dr. Amanpreet Kaur Chitkara University, Pinjab, according to EP 6B07102 Electronic Engineering represented by Kulniyazova K.S., ENU L.N. Gumilev, Mukhamedrakhimova A.R. LLP "Energy of the East", Dr. Amanpreet Kaur Chitkara University, Pinjab.

The EP of the cluster implements the educational needs of students. The goals of EP 6B06107 Mathematical and Computational Sciences, 6B07101 Industrial Internet of Things, 6B07102 Electronic Engineering are defined in accordance with the mission and vision of AITU outlined in the Development Strategy for 2020-2025. The goals of the EP have a clear formulation and are consistent with the mission of the university.

The purpose of EP 6B06107 Mathematical and Computational Sciences is to train specialists in predicting production processes based on mathematical modeling, computational experiments and big data analysis, who have a solid fundamental knowledge of mathematics, and high qualification in applied methods based on computational technologies.

The purpose of OP 6B07101 Industrial Internet of Things is intensive practice-oriented training in the field of the Industrial Internet of Things for the development of integrated Internet of Things systems, including sensor-based data acquisition modules, signal/data conversion and processing modules, secure data transmission systems, algorithms for collecting, processing and storing data on the server, data visualization technologies, and feedback, control and/or automation systems for technological Process. In addition, the EP is also focused on the automation and construction of cyber-physical systems, industrial storage and cloud computing, and industrial robotics.

The goal of 6B07102 Electronic Engineering is to train highly qualified specialists capable of developing microelectronic devices, electronic complexes and systems for various functional purposes, based on a solid foundation in the field of analog and digital electronics, nanoelectronics and microprocessor technology.

The management of educational programs is carried out in the context of the University Development Strategy. The university is developing EPs in accordance with regulatory requirements.

Risk management at the university is carried out in accordance with the Risk Management Policy, which is also reflected in the Strategic Development Plan of the university. The university has the position of the Chief Academic Compliance Officer. is Ajalgas Aidana Bozkulankyzy, MSc in Mechanical Engineering, BSc in Mathematics. EP 6B07101 Industrial Internet of Things and EP 6B07102 Electronic Engineering is implemented at the Department of Intelligent Systems and Cybersecurity, the Director of the Department is Rzayeva Leila Hummetovna, PhD Doctor in Automation and Control.

For the design and development of bachelor's degree programs in the field of "Information and Communication Technologies", "Engineering and Engineering", taking into account the requirements of professional standards, industry frameworks, the labor market, the current level of development of science and production, Academic Committees have been created in the areas of training, the main purpose of which is to develop and improve the EP, analyze the compliance of the content of disciplines with their goals, objectives and learning outcomes and regulate Regulations on Academic Committees (dated December 28, 2022). The Academic Committee is engaged in the development of educational programs (updating existing ones, developing new and innovative EPs) taking into account the following parameters: staffing, provision of EPs with information resources, material and technical support, provision of practice bases, information support for the process of implementing EPs, methodological support for the implementation of EPs. Academic committees in the areas of training include experienced teachers, representatives of employers and students. Academic committees are formed on the basis of departments that implement educational programs. The composition of the Committee is approved by the order of the Rector, in agreement with the Vice-Rector and the Dean.

Along with experienced teaching staff and students, the working groups include practitioners from production represented by social partners. Both the leading teaching staff of the department, employers, and students are involved in the development of the EP: for example, the AC includes

EP 6B06107 Mathematical and Computational Sciences Kaisar Mussalim, Junior Data Analyst of Media Monks Kazakhstan LLP, Kanat Aidarov Lead Engineer of Kar-Tel LLP, Software, Gabiden Tanekeev, Executive Director of TengriLab LLP, Kanat Ilyasov Senior architect, SB Bank Home Credit JSC, Dmitry Mun Head of Smart Data Ukimet Block of Big Data of NIT JSC, Dinara Alimova Director of Speech Lab LLP (startup within the KazDream holding), Bulat Tanirbergen Head of Product Management. Sergek Development, Teaching Staff of the Department of Educational Programs Association. Prof. Raihan Madi, Associate Professor. Prof. Edilhan Didar, etc.

According to EP 6B07101 Industrial Internet of Things and 6B07102 Electronic Engineering represented by Lyazzat Akhmurzina - Executive Director of the KAZENERGY Association, Dmitry Yuryevich Zernov - Technical Director of Prometeo Chain system KZ Ltd, Asylbek Kalkenovich Zeinidenov - Dean of the Faculty of Physics and Engineering of Karaganda Buketov University, K.S. Kulniyazova - Senior Lecturer of ENU L.N. Gumilev, Akhmet Tusupov - Regional Manager of Hewlett Packard Enterprise Kazakhstan, the teaching staff of the Department of Educational Programs represented by the Associate. prof. Sarinova A. Zh., assistant prof. Tursynbek I. T., master, senior-lecturer Kusdavletov S. A. Studeta 1st year gr. IoT-2301 A. Kuanyshbai, student gr. EE – 3101 A. Nagatai.

The development plan of the programme is in line with the strategic directions, goals and objectives of the University and implements the following main strategic directions:

training of competitive personnel;

development of human resources and management system of the university;

development of infrastructure and material and technical base.

For the effective management of educational programs, a number of internal regulatory documents were developed and amended, for example, Academic Policy (dated 28.12.2023) and HR policy (from 28.12.2023), Rules for Competitive Filling of Teaching Staff Positions (from 16.02.2022), Rules for transferring, reinstatement, expulsion and granting academic leave to students (from 28.12.2022), Regulations on the Student Assessment System (28..09.2023), etc.

The job responsibilities of the staff and those responsible for business processes are developed and agreed with the Department of Legal Support and approved by the order of the Rector of AITU. Job descriptions include the name of the position, general provisions, job duties, rights, responsibilities. A competitive selection is carried out for all positions of the teaching staff of the EP.

The distribution of responsibilities and powers is determined by internal regulatory documents: university plans, orders of the rector, job descriptions and regulations on departments. The interaction between the structural divisions and employees of the university is defined in the current organizational structure https://astanait.edu.kz/organizacionnaya-struktura/ .

The transparency of the management system of accredited EPs is ensured by the availability of information in all areas of activity for stakeholders. Dissemination of information about the university is carried out through the official website of the university https://astanait.edu.kz.

The AITU Risk Management Policy regulates and regulates the processes for identifying, preventing and minimizing risks, as well as the organization of risk management (approved at the meeting of the AITU Board, Minutes No 1 dated 9.11.2020). Based on the factor analysis of the state of the university in the context of the external environment and the long-term analysis of the development of the educational services market and the demand of the labor market in the Republic of Kazakhstan, risks were identified and mechanisms for preventing and minimizing risks were developed. A Risk Register has been compiled, areas of risk assessment and risk levels have been identified. Amendments and additions were made to the Risk Register (Minutes of the Management Board No 4 dated 21.04.2022, additions to the Minutes of the Management Board dated 18.03.2024) A working group was created to ensure annual monitoring of the implementation of the strategy and identification of risks. The Department of Strategy and Corporate Governance provided general guidance on the implementation of measures and achievements of the indicators of the Development Strategy of Astana IT University.

At the moment, the degree of teaching staff in the context of EP is

EP 6B06107 Mathematical and Computational Sciences –48

According to EP 6B07101 Industrial Internet of Things - 44%

OP 6B07102 Electronic Engineering -48 %

Awareness of a wide range of interested groups about measures to prevent and minimize risks is provided through the web pages of the Office of the https://astanait.edu.kz/programs/.

To ensure the quality of educational processes, the University regularly conducts a comparative analysis of the results of the student survey, based on the results of which decisions

are made to improve the processes. The results of the analysis are regularly considered at meetings of the collegial bodies of the University of Rectorate and the International Council. (Minutes of the Rectorate No 15 of February 2024; meeting of the International Council. (Minutes No 4 of December 27, 2022)

Monitoring of the implementation of plans includes the following mechanisms:

- reports on the results of activities;
- Internal audits;
- consideration of the development of various areas of training of specialists at collegial bodies.

To discuss topical IT problems, regular AITU Tech Talks meetings are held, where speakers from technology companies and scientific organizations of the industry are invited: Zerde, Chocofamily, TSARKA, Kolesa Group, etc https://apc.astanait.edu.kz/.

Proposals from interested parties to improve the activities of the programme can be received both through communicative means of communication (through the official website of the university). The management of the programme programme, represented by the Director of the Educational Programme Department, is open to receive visitors daily from 8.30 a.m. to 6.00 p.m., with the exception of holding their own classes according to the schedule and participating in meetings of collegial bodies.

The management provides feedback on all requests received from students, employees, representatives of the external environment through the organization of office hours and online consultations in chats groups of the Microsoft Teams corporate portal, WhatsApp and Telegram mobile applications or through corporate e-mail. The purpose of the educational portal "Platonus" and the information system "Digital University" is to bring educational services as close as possible and timely bring to students information related to academic performance and the educational process.

Analytical part

The EEC emphasizes the importance of focusing the mission and vision of the university on meeting the needs of various stakeholders, such as the state, society, sectors of the economy and potential stakeholders.

The experts also confirm that these elements, including the mission, vision and direction of development, as well as the quality assurance policy, are publicly available and posted on the university's website.

The department has a Development Plan for EP 6B06107 Mathematical and Computational Sciences, 6B07101 Industrial Internet of Things, 6B07102 Electronic Engineering.

The formation of the EP Development Plan is carried out in accordance with the Bologna principles of education. To improve the EP and increase the competitiveness of graduates, employers representing the interests of future specialists - the main representatives: members of the Kazakhstan Association of IT Companies - participate in the development and discussion of the Plan. Employers express their opinions on the structure of the EP Development Plan, its content and compliance with the development priorities of the Republic of Kazakhstan in this direction.

Experts note that the EP development plan does not formulate the uniqueness of the EP and the individuality of its development plan in the presence of a SWOT analysis, which noted the strengths of each EP. In addition, it is important to ensure the consistency of the goals and objectives of the EP with the mission of the university and its values, as well as with national development priorities.

In the course of the questionnaire and interviews, it was established that the management of the university and its structural divisions is open to a comprehensive dialogue in order to continuously improve the accredited EPs.

The submitted documents and materials give a complete picture of the openness of the procedures for the formation and control and revision of the OP.

Certificates and certificates confirming the training of the EP management in educational

management programs are presented

Strengths:

The management of the EP has developed development plans for accredited EPs, taking into account the analysis of the relevance of the program, provides target indicators, time criteria and those responsible for achieving them, presents a risk analysis and SWOT analysis, and the presented development plan has a logically built structure and content that is convenient for developing a plan for specific actions on the part of the university.

Recommendations of the EEC:

In the structure of the EP Development Plan, based on the SWOT analysis, the EP management should provide a section on the establishment of competitive or distinctive features of EPs to determine their uniqueness, as well as the individuality of the EP development plans, their consistency with national priorities in the relevant areas of knowledge and with the University Development Program. The deadline is January 1, 2025.

Conclusions of the EEC on the following criteria:

According to the standard "Management of the Educational Program", 15 criteria have been disclosed, of which according to EP 6B06107 Mathematical and Computational Sciences, EP 6B07101 Industrial Internet of Things, EP 6B07102 Electronic Engineering, 1 has a strong position, 13 - satisfactory and 1 position suggesting improvement.

6.2. Information Management and Reporting Standard

- *The GS should demonstrate that it has a system for collecting, analysing and managing information using modern information and communication technologies and software and that it uses a variety of methods to collect and analyse information in the context of the LO.*
- *The management of the SOs should demonstrate the existence of a mechanism for the systematic use of processed, adequate information to improve the internal quality assurance system.*
- *The management of the OP must demonstrate fact-based decision-making.*
- *Within the framework of the EP, a system of regular reporting should be provided, reflecting all levels of the structure, including an assessment of the effectiveness and efficiency of the activities of divisions and departments, scientific research.*
- *The EI should establish the frequency, forms and methods of assessing the management of the educational program, the activities of collegial bodies and structural units, top management, and the implementation of scientific projects.*
- *The NGO must demonstrate the determination of the procedure and ensuring the protection of information, including the identification of persons responsible for the reliability and timeliness of information analysis and data provision.*
- *An important factor is the availability of mechanisms for involving students, employees and teaching staff in the processes of collecting and analyzing information, as well as making decisions based on them.*
- *The management of the EP must demonstrate the existence of a mechanism for communication with students, employees and other stakeholders, as well as mechanisms for resolving conflicts.*
- *The PO should demonstrate that there are mechanisms in place to measure the degree of satisfaction of the needs of faculty, staff and trainees within the OB.*
- *The GS should provide for an assessment of performance and effectiveness, including in the context of the OP.*
- *The information to be collected and analyzed within the framework of the OP should take into account:*
  - *key performance indicators;*
  - *the dynamics of the contingent of students in the context of forms and types;*
  - *the level of academic performance, student achievements and expulsion;*
  - *students' satisfaction with the implementation of the EP and the quality of education at the university;*
  - *the availability of educational resources and support systems for students;*
- *The NGO must confirm the implementation of procedures for processing personal data of students, employees and teaching staff on the basis of their documentary consent.*

Evidence

To manage information and reporting, the following systems for collecting and analyzing data for decision-making have been implemented in the activities of Astana IT University: information systems in various areas and areas; a system of reporting by structural units on the results of work; consideration of issues at collegial bodies; analysis of the external and internal environment of the university; conducting internal audits and inspections to obtain information about processes; stakeholder satisfaction assessment system; self-assessment in preparation for external assessment procedures (rating, accreditation, etc.).

The University provides information management within the framework of the following information systems:

Official website of the university: https://astanait.edu.kz.

Automated information system for managing the educational process "Platonus" https://platonus.astanait.edu.kz, "Moodle" http://moodle.astanait.edu.kz, Microsoft Teams, "Digital University" https://du.astanait.edu.kz/ integrated with the EHEA

automated accounting information system "1C Accounting"

internal document management "Thesis" http://85.159.27.227:8080/app/#!

Corporate mail, MS Outlook, etc.

AITU Social Media:

Facebook https://www.facebook.com/astanaituniversity

Instagram University https://www.instagram.com/astana_it_university/

Telegram https://t.me/aitu2020info

Youtube https://www.youtube.com/c/AstanaITUniversity?app=desktop

TikTok https://www.tiktok.com/@astana_it_university

The main information flows of the University are the website and subpages of the University, social networks, as well as platforms used for academic activities Moodle, Platonus, Abitur. The website of Astana IT University is https://astanait.edu.kz/ a means through which information about the University is generated. Academic Department, Department of Marketing and Public Relations, Department of Accounting, Department of Social and Educational Work.

The university website is based on the information and telecommunication infrastructure, consisting of an information and analytical system, that is, programs for the collection, storage, processing of documents and other information about university activities and a portal that includes the websites of all departments of the university.

Within the LMS (Learning Management System) systems of the university, learning management is implemented through the platforms Moodle, "Platonus", "Abitur" and "Digital University" as a tool for collecting and analyzing information. The integration of data by means of "Moodle" and "Abitur" provides information intended for the operational and strategic management of the university. The "Digital University" has a complete database of students at all levels of training and forms of training, teaching staff and other employees united in user groups with individual rights, with differentiation of access to information resources.

Registration of students for elective disciplines, the creation of cost-effective academic flows is carried out through the information system "Digital University". Each student has the opportunity to use their personal virtual account: to get acquainted with the syllabuses of disciplines and the standard curriculum; to register for elective disciplines and form their own individual curriculum; to view the transcript and schedule of classes; to access the virtual classroom. Moodle (Modular Object-Oriented Dynamic Learning Environment) is a learning management system focused primarily on organizing interaction between teacher and students, although it is also suitable for organizing traditional distance courses, as well as supporting face-to-face learning.

Using Moodle, the teacher can create courses, filling them with content in the form of texts, auxiliary files, presentations, questionnaires, etc. Thus, Moodle is also a center for creating educational material and ensuring interaction between participants in the educational process. EP 6B06107 Mathematical and Computational Sciences, 6B07101 Industrial Internet of Things, 6B07102 Electronic Engineering are included in the Register of Educational Programs.

The implementation of the information policy is ensured by the Department of Marketing and Public Relations (DMSO) of the University, whose functions include determining the priority areas of the information policy, forming plans for its implementation using all available information sources, ensuring the completeness and efficiency of information, developing existing and searching for new media, as well as monitoring the media in order to adjust information activities. These processes are documented in the Department's Process Regulations (DMSO). At the request of employees of other departments, DIT employees generate reports. Reports are retrieved from system databases.

The collection and monitoring of information about the academic achievements of students, regulated by internal regulatory documents, is carried out through an information and analytical complex for managing the educational process and includes:

1) collection, monitoring and analysis of the results of current academic performance;

2) collection, monitoring and analysis of the results of intermediate and final certification;

3) ranking by GPA level.

Data collection is carried out using an online portal and begins immediately after the admission of students. All the information necessary for future analysis is entered into the portal. The university has developed an online registration "Abitur", which is filled out by applicants upon admission. Online registration allows you to automate the processes of registration and accounting of applicants, significantly increasing the efficiency of the technical secretaries of the admission committee. After completing the registration, the data goes to the program. It stores the personal information of each student, their data on education, age, etc.

The management of the educational process at the University is carried out through the Digital University portal. This system provides complete information about the learning process of each student for the entire period of study. Records of progress in all disciplines are kept, GPA (general and by subjects) is indicated. In the portal, a schedule is created, registration for courses takes place, and an academic calendar is displayed. Learners get access to their grades, transcript, and attendance. The portal provides individual access for teachers, employees of the Accounting Department, the Student Service Center and the Library.

The main functions of managing the educational process are carried out by specialists of the registration department (OR), who have a set of rights to administer the information system. A full set of rights to administer the system "Moodle" http://moodle.astanait.edu.kz, Microsoft Teams, "Digital University" https://du.astanait.edu.kz/ available only to programmers of the information technology department. Also, limited access to the system is available to university employees who in their activities come into contact with the functionality of the system, for example, department directors have access to viewing educational achievements and personal data of students, those responsible for conducting computer testing have access to the functions of printing passwords for testing sessions. Separate interfaces for access to the system (personal accounts) have been developed for students, teachers and group advisors. Access to all virtual resources of the university is made from one point. There is a unified system for organizing accounts. The system is used both for external (integrated services) and for internal development. Accounts are created by the DIT on the basis of orders for the enrollment of students and university staff. When users are added to the system, roles are assigned according to their access.

The Security Policy applies to all resources used (forms, Database, etc.). GPOs create policies and roles for AD users to access specific resources. The enterprise version of Kasperky Endpoint Security also plays a role at the software level. The Administration Server has web filter policies, Software Control, and Device Control. In addition to KES, the Fortinet 601E Firewall is used.

The student's personal account in the DU system allows you to view your personal information, educational achievements and individual curriculum. The functionality of the advisor's personal account is basically similar to the functionality of the student's personal account, but the adviser has access to the data of the students assigned to him. The teacher's personal account provides access to filling out attestation points and the results of term papers, oral exams,

as well as to filling in the attendance of classes by students. The DU information system is constantly being developed and refined taking into account the updated requirements for the management of the educational process.

Electronic library of the university, the content of which contains methodological developments of university teachers, literature of high demand. Remote access to the resources of the Digital Library is provided around the clock and can be carried out through local and global networks, in particular through the local network of the university.

The electronic library includes:

- electronic catalog of the library;
- electronic resources of the library (website of the scientific library, resource of abstracts of master's theses, access to the republican interuniversity electronic library, Scopus, ScienceDirect, Web of Science Core Collection);
- electronic resources of the media library;
- electronic resources of information retrieval systems;
- electronic resources of educational programs on the Internet.

The main sources for determining the needs and expectations of key stakeholders are defined in the Strategic Development Plan of the University in the Development Strategy of Astana IT University for 2020-2025 https://astanait.edu.kz/wp-content/uploads/2020/05/AITU-Strategy.pdf

Information on the main processes at the university is available in the Internal Regulations: Regulations on the Board of Astana IT University LLP, Regulations on the Rectorate, Regulations on the Academic Council of Astana IT University LLP, Regulations on the Academic and Methodological Council of Astana IT University LLP, Regulations on the Disciplinary Council for the Consideration of Students' Responsibility of Astana IT University LLP, Regulations on the Council of Young Scientists, Regulations on Academic Committees, Regulations on the Academic Quality Council of Astana IT University LLP, Regulations on the Supervisory Board of Astana IT University LLP (https://drive.google.com/drive/folders/1UuRckElHrEwu6knXr0ER-LDXSbl0-Fqh).

Collection and analysis of information on the state of processes is a key tool for internal quality assurance in the implementation of the OP, which is carried out as part of the internal audit at scheduled intervals. A systematic approach to the collection and analysis of information during the implementation of the OP ensures that business processes comply with the requirements of regulatory documents and relevant standards of internal quality assurance with the planned activities. A schedule of internal audit for the analysis of the university's business processes has been developed. Employee experts conduct training seminars on the internal quality assurance system and assess the processes of the divisions in accordance with the audit program. For example, in the 2022-2023 academic year, about 20 structural divisions of the university were audited. Based on the results of the audit, the head of the audited department develops corrective actions aimed at preventing the possibility of the identified non-conformities. The results of the internal audit were considered at the meetings of the collegial bodies of the University (Minutes of the Rectorate No 9 of 28.02.22).

According to the AITU Risk Management Policy, the compliance officer is working to identify risks within the approved schedule, including the collection of information on the implementation of decisions made by collegial bodies by structural units.

All activities of the university are reflected in accordance with the academic policy of the university, in semi-annual and annual reports of structural divisions, reports on areas of activity. To assess the effectiveness of the EP activities, the university has Academic Committees, a collegial body engaged in the development and improvement of EP, which operates on the basis of the departments of educational programs.

In turn, the dynamics of the contingent of students in the context of forms and types is tracked in the student department of the university through the Digital University system. The information system of the university provides constant monitoring of activities to record the educational achievements of students. All courses are created in LMS Moodle, after the completion of the

academic term and passing the intermediate certification, all assessments are integrated into the Digital University system. The results of the examination sessions are discussed at the Academic Council and the Educational and Methodological Council.

The Departments of Educational Programmes draw up semi-annual and annual reports, which are considered at meetings of the Departments of the Programme, the Educational and Methodological Council of the University, and the Rector's Office. The structure of the EP Faculty report consists of sections: educational and methodological work, research work, public events, academic mobility program, educational work. Comparative indicators used in the assessment orient the teaching staff to solve the main problems of the development of departments and the university as a whole.

In the context of the EP, the annual reports reflect the results of admission (Minutes CS No 3, dated September 28, 2023), an analysis of the effectiveness of the current EP, the results of academic achievements of students of the EP (Minutes CS No 8 dated January 27, 2022, Minutes No11, April 27, 2022), strategies for the development of educational programs are discussed at the collegial bodies of the University (Minutes CS No 6 dated 12/30/21; No 9 dated 02/28/22; No 10 dated 03/31/22).

For internal assessment of departments, a KPI system has been developed to analyze business process indicators. According to the regulation on KPI, the heads of departments include an assessment of organizational activities, the main indicators of the work of the faculty in accordance with his position, the achievement of success in the framework of pedagogical activities. This system is reflected in the Personnel Policy of Astana IT University LLP https://drive.google.com/drive/folders/1UuRckElHrEwu6knXr0ER-LDXSbl0-Fqh and in the Regulation on Key Performance Indicators (KPIs) of Faculty and Employees of Astana IT University LLP https://drive.google.com/drive/folders/10UFKA0WAlK64eAEOK5FKgumHGPZyZieH.

The survey of teaching staff and staff is conducted annually and includes a survey of the level of satisfaction of teaching staff and employees with working conditions, prospects for professional development and administrative management of AITU. The survey of students on satisfaction with the quality of educational services is carried out in order to study the opinions of students regarding the quality of educational and administrative services of the University. social needs of students, attitude to the university, the educational process and the chosen specialty, the socio-cultural environment and psychological atmosphere at the university, the problem of education and the areas of educational work. The results of the survey of students and the analysis of the data obtained on the questionnaire "Teacher through the eyes of students" are published on the AITU https://astanait.edu.kz/sociological-research/ website.

The policy of AITU management to resolve conflicts of interest is aimed at the implementation of preventive measures and is regulated by the Internal and Labor Regulations, the Institutional Code of Ethics, the Code of Corporate Governance, and the Code of Honor of Students.

The safety of information is ensured by the effective distribution of roles and functions in the IS used, the availability of antivirus programs, system administration of servers, and a backup system on servers; restriction of access of individuals to the premises with servers; technical equipment of rooms with servers to ensure work safety.

Backups are performed with Veeam Backup & Raplication. Backups are configured for Full Backup and Incremental Backup with a duration of 7 points. That is, 1 Full Backup and 6 Incremental Backup.

The university collects, processes and protects personal data in accordance with the legislation of the Republic of Kazakhstan. All students, employees and teaching staff of the university, in accordance with the current legislation of the Republic of Kazakhstan, including in accordance with the Law of the Republic of Kazakhstan "On Personal Data and Their Protection" (dated May 21, 2013 No 94-V with amendments and additions as of 06/25/2020), confirm their consent to the processing of personal data, which confirms the legitimacy of Astana IT University

activities in this area, as well as job descriptions, Regulations, internal regulatory documents serve as a guarantee of lawful collection and analysis of information, regulations for the responsibility of officials for the reliability of information posted in the AIS "Platonus" and "Moodle". Students confirm their consent to the processing of personal data when filling out a personal application for admission to the first year.

Analytical part

The activities of the university are reflected in the media space and on the official website of the university.

The analysis of compliance with the criteria of this standard allowed the EEC to conclude that the university's system of information collection and management, reporting system and supported databases are favorable for the preparation of reports and analytical reports for various purposes.

To study the quality of the organization of the educational process and measure the degree of satisfaction of the staff, students and other stakeholders of the university, various sociological surveys are conducted (however, the results of a sociological survey of only students are presented, the results of the survey of other stakeholders are not available).

EEC members note a steady increase in the number of students enrolled in accredited EPs, which indicates the attractiveness of EP 6B06107 Mathematical and Computational Sciences, EP 6B07101 Industrial Internet of Things, EP 6B07102 Electronic Engineering.

During conversations with faculty, students and other stakeholders, the EEC noted that at the university level, these categories are regularly involved in the processes of collecting and analyzing information. Students annually participate in an anonymous survey on various topics, including to determine the degree of satisfaction of students with the implementation of the EP and the quality of education at the university.

Students and teaching staff upon admission/hiring sign a consent to the processing of personal data, in terms of the necessary functioning of the university. The relevant documents were presented to the members of the EEC.

Strengths:

Strengths have not been identified.

Recommendations of the EEC:

There are no recommendations.

Conclusions of the EEC on the following criteria:

According to the "Information Management and Reporting" standard, 16 criteria have been disclosed, of which according to EP 6B06107 Mathematical and Computational Sciences, EP 6B07101 Industrial Internet of Things, EP 6B07102 Electronic Engineering 16 have a satisfactory position.

6.3. Standard "Development and Approval of the Educational Program"

- *The CA should define and document the procedures for the development of the CA and their approval at the institutional level.*
- *The management of the EP must ensure that the developed EPs comply with the established goals, including the expected learning outcomes.*
- *The management of the OP must demonstrate the existence of mechanisms for revising the content and structure of the OP, taking into account changes in the labor market, the requirements of employers and the social demand of society.*

- *The management of the EP should ensure the availability of developed models of the EP graduate, describing the learning outcomes and personal qualities.*
- *The management of the SE must demonstrate the conduct of external examinations of the content of the EP and the planned results of its implementation.*
- *Qualifications awarded at the end of the EP must be clearly defined and correspond to a certain level of NSC and QF-EHEA.*
- *The management of the EP should determine the influence of disciplines and professional practices on the formation of learning outcomes.*
- *An important factor is the possibility of preparing students for professional certification.*
- *The management of the EP must provide evidence of the participation of students, faculty and other stakeholders in the development of the EP and ensuring their quality.*
- *The management of the EP must ensure the content of academic disciplines and learning outcomes at the level of study (bachelor's, master's, doctoral studies).*
- *The structure of EP should provide for various types of activities that ensure the achievement of the planned learning outcomes by students.*
- *An important factor is the correspondence of the content of the EP and the learning outcomes of the EP implemented by higher and (or) postgraduate education organizations in the EHEA.*

Evidence

The initial documents and the basis for the development of EPs are the RLA in the field of education, the State Educational Standards of the Republic of Kazakhstan, standard curricula of specialties and compulsory disciplines, as well as the National Qualifications Framework of the Republic of Kazakhstan, the country's professional standards and the Atlas of New Professions.

The development and approval of educational programs in Astana IT University LLP is carried out in accordance with the provisions of regulatory legal acts in the field of higher and postgraduate education, as well as in accordance with the documentation developed by the University to ensure transparency and clarity in the implementation of the directions of the university's development strategies. Training at Astana IT University is carried out in groups of bachelor's and master's educational programs on the basis of the State License NoKZ26LAA00015835 dated April 12, 2019 (https://astanait.edu.kz/wp-content/uploads/2020/05/license-1.pdf).

The implementation of the EP of the corresponding levels of education is aimed at the formation of key competencies of future specialists and meeting the needs of the labor market. EPs provide for the possibility of building an individual educational trajectory, taking into account the personal needs and capabilities of students.

Astana IT University LLP has defined and documented the procedures for assessing the quality of educational programs, which are reflected in the developed and approved internal regulatory documents (IRD) of AITU.

The process of developing and approving educational programs of the university is regulated by: Model Rules for the Activities of Educational Organizations Implementing Educational Programs of Higher and (or) Postgraduate Education, approved by the Order of the Minister of Education and Science of the Republic of Kazakhstan on July 14, 2021 No 339; State Educational Standards of Higher and Postgraduate Education, approved by the Order of the Minister of Education and Science of the Republic of Kazakhstan dated October 31, 2018, No604; Rules for the organization of the educational process on credit technology of education, approved by the order of the Minister of Education and Science of the Republic of Kazakhstan dated October 12, 2018 No 563; Academic Policy, Internal Quality Assurance Policy and Standards, as well as Internal Regulatory Documents of the University (AITU IRD).

AITU has adopted and approved the following IRDs, which regulate the procedures for the development and assessment of the quality of EP, which are approved by the order of the Rector of the University on the basis of the decisions of the Academic Council of the University:

Academic Policy of Astana IT University LLP (DP AITU-01);

Rules for the Development of Educational Programs of Higher and Postgraduate Education of Astana IT University LLP (DP AITU-17);

Rules for the organization of the educational process on credit technology of training (DP AITU-03);

Regulations on the organization of the educational process in distance educational technologies (DLT) of Astana IT University (DP AITU-06);

Rules on the organization of educational and methodological activities of Astana IT University (DP AITU-81);

Regulations on the organization and conduct of students' practice (DP AITU-20);

Rules for the organization and conduct of interim certification of students of Astana IT University (DP AITU-07);

Regulations on the research work of Astana IT University (DP AITU-32);

Regulations on the intra-university stage of the competition of research of students of Astana IT University (DP AITU-79);

Regulations on the Student Assessment System of Astana IT University (DP AITU-02);

Rules for conducting the final certification of students of Astana IT University (DP AITU-08);

Rules for the transfer, restoration, expulsion and granting of academic leaves to students of Astana IT University (DP AITU-09);

Rules for the recognition of learning outcomes in formal and non-formal education at Astana IT University (DP AITU-55).

To develop EP, the university has an Academic Committee for a group of EPs implemented in graduating departments. The Academic Committee is formed for the purpose of designing EPs, developing and further improving EPs based on the study of the field of professional activity, which includes the most experienced specialists from among the teaching staff of the university, including teachers with extensive practical experience, and/or extensive experience in research activities, representatives of practice bases and production.

The strategic directions of the University's activities, as well as the implemented State Policy of the country in the field of higher and postgraduate education, the State Program of the Republic of Kazakhstan "Digital Kazakhstan" for the digital transformation of Kazakhstani society and the Atlas of New Professions are the foundation and basis for the development and approval of innovative educational programs at AITU, distinguished by their uniqueness and compliance with international standards. The EP regulates the goals, results, content, conditions and technologies for the implementation of the educational process, the assessment of the quality of training of graduates in the field of training and includes materials that ensure the quality of training of students and the implementation of appropriate educational technologies. The EP passport is available at the EP link

6B06107 Mathematical and Computational Sciences https://astanait.edu.kz/mathematical-computational-science-3/

6B07101 Industrial Internet of Things (https://astanait.edu.kz/industrial-internet-of-things/

6B07102 Electronic Engineering (https://astanait.edu.kz/en/electronic-engineering-2/).

Responsible for the implementation of the above procedures are the owners of the processes, in particular, those responsible for the development, approval and implementation of the accredited EP, the graduating EP Departments, the Academic Committee, as well as the top management of the university represented by the Vice-Rectors, the Dean, and the Directors of Structural Departments.

Quality assessment and monitoring is an important factor in ensuring the quality of the university's EP. Every year, EPs are analyzed at meetings of graduating departments and academic committees with the participation of students, employers, and representatives of the business community.

Representatives of employers give reviews on the content of the EP. This is how reviews are presented as an external examination of EP 6B06107 Mathematical and Computational Sciences represented by Daniyar Nurseitov, Expert of KMG Engineering LLP; Donming Wei, Professor, Nazarbayev University; Zhenisgul Rakhmetullina, Dean of the International School of

Engineering, D. Serikbayev EKSTU; according to EP 6B07101 Industrial Internet of Things represented by Kulniyazova K.S., ENU L.N. Gumilev, Mukhamedrakhimova A.R., LLP "Energy of the East", Dr. Amanpreet Kaur Chitkara University, Pinjab, according to EP 6B07102 Electronic Engineering represented by Kulniyazova K.S., ENU L.N. Gumilev, Mukhamedrakhimova A.R. LLP "Energy of the East", Dr. Amanpreet Kaur Chitkara University, Pinjab.

The procedure for the development, evaluation, improvement and approval of the EP is regulated in the Internal Affairs of the University - "Rules for the Development of Educational Programs of Higher and Postgraduate Education of Astana IT University LLP" (DP AITU-17), as well as in the "Academic Policy of Astana IT University LLP" (DP AITU-01). These Rules and the Policy determine the procedure for the development of the university's EP.

Persons responsible for the development and approval of the EP (EP departments, faculty departments, students, heads of structural divisions) conduct an analysis of the labor market, marketing analysis and research of the field of training and the state of the industry in terms of staffing, the necessary knowledge and professional skills for the developing maps of new professions, trends in the development of the economy and priority industry areas. In order to obtain an adequate picture of the labor market, questionnaires, surveys of employers, businesses, students and other forms of statistical and analytical research are carried out.

Teachers of specialized departments make their proposals to the director for the formation of modules in accordance with the goals and objectives of the EP disciplines, indicating the learning outcomes of the module, volume and duration. Representatives of employers, the business community, interested stakeholders, as well as students are also involved in the development and revision of the EP when forming modules.

The Academic Committees (ACs) of the graduating departments analyze the correctness of the technology for compiling modules, taking into account compliance with the requirements and established Rules of the CTO for the formation of educational programs. The AC conducts an internal technical review of educational programs, as a result of which the program is submitted for consideration by the Dean of the University to the Educational and Methodological Council of AITU. After approval by the EMC, the EP is submitted for approval to the Academic Council of the University. This procedure is described in Instructions "Rules for the development of educational programs of higher and postgraduate education of Astana IT University LLP" (DP AITU-17).

The structure of the EP reflects the expected learning outcomes after the completion of the educational program. Learning outcomes reflect the qualification levels and key competencies of the graduate. The main requirements for the content structure of the EP are established in accordance with the requirements and basic provisions of the State Educational Standards.

In accordance with the State Educational Standards of the Republic of Kazakhstan, each cycle of disciplines consists of a mandatory component and an elective component. The component for the choice of each cycle of the EP provides universities with the opportunity to independently determine the trajectory of the educational program, through the independent formation of a course of elective disciplines, taking into account the specifics of the socio-economic development of the state, the development of Digital Kazakhstan, as well as in accordance with the needs of the labor market of a particular region. Elective courses provide students with the right to independently choose disciplines in accordance with academic, scientific and personal interests. Employers can make recommendations when forming modules of the educational program, as well as offer a list of elective disciplines that are the most significant and relevant in the professional training of future specialists in the IT field and in the field of digital transformation.

The potential employers of AITU, whose activities correspond to the training of personnel, are:

EP 6B06107 Mathematical and Computational Sciences KMG Engineering LLP, National Center for Biotechnology, ForteBank JSC, Kaspi Bank, BTS Digital, Institute of Mechanics and

Mechanical Engineering named after Academician U.A. Dzholdasbekov, Institute of Mathematics and Mathematical Modeling.

According to OP 6B07101 Industrial Internet of Things Energy of the East LLP, Karachaganak Petroleum Operating BV (KPO BV), National Service Company LLP (NSC LLP), Sapa Software LLP, Astana-Teplotranzit LLP, IKMG LLP (Munai Gas Engineering Company LLP, Automation Technology and Solutions LLP, RSE on REM "Engineering and Technical Center Administrative Department of the President of the Republic of Kazakhstan"

Under OP 6B07102 Electronic Engineering of Energia Vostoka LLP, Karachaganak Petroleum Operating BV (KPO BV), National Service Company LLP (NSC LLP), Sapa Software LLP, Astana-Teplotranzit LLP, ICMG LLP (Munai Gas Engineering Company LLP, Automation Technology and Solutions LLP, Engineering and Technical Center Administrative Department of the President of the Republic of Kazakhstan, Transtelecom JSC, Transtelecom Aktau JSC).

These organizations and business companies, represented by their representatives, are members of academic committees, working groups for the development and evaluation of EPs, are external reviewers of EPs and modules, provide internships for students and their subsequent employment, give lectures, and are involved in the scientific supervision of theses/projects and master's theses.

The final version of the EP, agreed with employers, representatives of business companies, is considered at the CS of the University for compliance of the EP with regulatory requirements, compliance with the principle of continuity and continuity in the formation of the trajectory of the educational program. The EP is approved by the Rector of the University on the basis of the decision of the Academic Council.

EPs are reviewed annually and undergo the entire approval procedure in accordance with the Instruction "Rules for the Development of Educational Programs of Higher and Postgraduate Education of Astana IT University LLP" (DP AITU-17). The need for change comes from the wishes of employers, the interests of students and the scientific research of departments.

Learning outcomes are formed both at the level of the entire EP of higher education and at the level of individual modules or academic disciplines.

AITU bachelor's degree programs contain:

1) theoretical training, including the study of cycles of OOD, basic and major disciplines;

2) intermediate and final attestation;

All interested parties are involved in the process of developing the Astana IT University Graduate Model: employers in the areas of training, stakeholders, representatives of the business community, students, faculty, EP management, etc. by including them in academic committees, inviting them to extended meetings of departments to discuss EP.

Qualifications obtained upon completion of educational programs meet the requirements of qualification level No6 of the National Qualification System of the Republic of Kazakhstan. Graduates of the EP 6B06107 Mathematical and Computational Sciences, 6B07101 Industrial Internet of Things, 6B07102 Electronic Engineering will have fundamental, professional training, possess modern information technologies, including innovative methods of teaching, processing and storing scientific information, are able to formulate and solve practical and business problems, organize and conduct practical activities in the chosen area, successfully carry out research and project activities.

In accordance with the knowledge, skills, competencies and development of personal qualities obtained in the learning process, the university has developed and is implementing its own competence model of a university graduate.

In accordance with the needs of the labor market, the requests of employers, on the basis of the National Qualification Framework, industry frameworks, professional standards, the State Compulsory Standard of Higher Education and the State Compulsory Standard of Postgraduate Education, the sets of required professional competencies (hereinafter referred to as the PC) are determined at the University and the learning outcomes (hereinafter referred to as the RP) are formed, which are achieved upon completion of training.

Thus, the model of a graduate of an educational program is formed through a set of competencies that meet the requirements of all those interested, and the resulting matrix is a visual display of the acquired competencies.

Students' practice is an integral part of the EP of higher/postgraduate professional education, aimed at consolidating theoretical knowledge gained in the process of studying at a higher educational institution, acquiring practical skills and competencies, as well as mastering best practices.

The structure of educational programs is developed taking into account the interdisciplinary nature of the courses taught, taking into account the continuity of the content of the educational program at various levels (bachelor's and master's degrees), as well as the logic of the academic interconnection of disciplines, consistency and continuity.

The logic of the disciplines taught by the accredited EP is determined by the study of disciplines, taking into account the prerequisites.

The correspondence of competencies, learning outcomes and disciplines of modules is reflected in the Map/Profile of Competencies of the EP.

In the development of the EP, in accordance with the internal regulations of the university on the organization of the educational process using credit technology, students build an individual learning trajectory in the form of an individual curriculum, compiled on the basis of the IEP and the Catalog of Elective Courses (CED). Syllabuses of academic disciplines are uploaded to LMS Moodle directly by teachers. In accordance with the individual curriculum, students use an individual login and password to enter their personal account and choose an elective course, taking into account their personal needs and capabilities.

The AIS Digital University program automatically outputs an individual student curriculum formed for the academic year, scheduled by semesters.

The management of the accredited EP of the university demonstrates the existence of an effective balance between theoretical and practice-oriented disciplines, taking into account the focus on solving urgent problems of engineering and technology and the interdisciplinary nature of educational modules. OP.

Accredited EPs include components of modules that contribute to the personal development of students, form special competencies and develop abilities. These are Sociology, Psychology, History of Kazakhstan, Physical Culture, Political Sciences, etc.

The Career and Employment Center of the university monitors the internship and monitors the quality of its organization after the graduating departments provide all the necessary information.

In order to implement the EP of the relevant specialty and ensure that students achieve the planned learning outcomes in practice, the University Center for Culture and Tourism has concluded agreements with the following organizations, defined as bases of students' practices:

EP 6B06107 Mathematical and Computational Sciences KMGengineering LLP, National Center for Biotechnology, ForteBank JSC, Kaspi Bank, BTS Digital, Institute of Mechanics and Mechanical Engineering named after Academician U.A. Dzholdasbekov, Institute of Mathematics and Mathematical Modeling.

According to OP 6B07101 Industrial Internet of Things and 6B07102 Electronic Engineering, Karachaganak Petroleum Operating BV (KPO BV), A.R. Mukhamedrakhimova, Energy of the East LLP, National Service Company LLP (NSC LLP), SAPA Software LLP, Astana-Teplotranzit LLP, IKMG LLP (MUNAI GAS Engineering Company LLP, Automation Technology and Solutions, LLP, Engineering and Technical Center Administrative Department of the President of the Republic of Kazakhstan).

In accordance with the developed educational program, which takes into account the individual needs and capabilities of students, a graduate model has been developed. This model describes the principles of ensuring the competitiveness of a specialist, his qualification characteristics, requirements for the development and implementation of the main educational program, as well as requirements for a graduate of the specialty and his competence within the

field of training. At the same time, EEC members note the high level of elaboration of the graduate's modules and its verbal and symbolic representation both in the documentation and on the website

To date, Astana IT University has signed partnership agreements and contracts with foreign universities in the USA, China and Europe, which enable our students to study under academic mobility programs, as well as the university to implement joint educational programs and projects to improve teaching methods, exchange teachers and scientists.

Analytical part

During the visit, EEC experts analyzed educational programs, educational and methodological support for their implementation. The documentation was developed in accordance with intra-university methodological recommendations and regulatory requirements of the Republic of Kazakhstan.

In accordance with the set strategic goals, mission and vision, the University strives to become an internationally recognized research center in the field of IT systems and technologies, as well as related industries.

An internal and external system for assessing the quality of EP has been developed, which includes clear and comprehensive procedures.

The qualification awarded at the end of the EP is clearly defined and corresponds to a certain level of NSC and QF-EHEA

All the studied syllabuses and other methodological materials allow us to conclude that such materials are sufficient and correspond to certain goals and learning outcomes for each of the accredited EPs, as well as all disciplines correspond to the level of education - bachelor's degree.

Strengths:

The university's website presents an implemented verbal and graphic representation of the graduate's model, which allows you to clearly determine his role and place in the future profession.

Recommendations of the EEC:

No recommendations were identified.

Conclusions of the EEC on the following criteria:

According to the standard "Development and Approval of the Educational Program", 12 criteria have been disclosed, of which 1 strong position has 1 strong position in EP 6B06107 Mathematical and Computational Sciences, EP 6B07101 Industrial Internet of Things, EP 6B07102 Electronic Engineering, 11 are satisfactory.

6.4. Standard "Continuous Monitoring and Periodic Evaluation of Educational Programs"

- *The EI should determine the mechanisms for monitoring and periodic evaluation of the EP to ensure the achievement of the goal and meet the needs of students, society and show the focus of the mechanisms on the continuous improvement of the EP.*
- *Monitoring and periodic evaluation of the OP should include:*
  - *the content of the programs in the light of the latest scientific achievements in a particular discipline to ensure the relevance of the discipline taught;*
  - *changes in the needs of society and the professional environment;*
  - *workload, academic performance and graduation of students;*
  - *the effectiveness of student assessment procedures;*
  - *expectations, needs and satisfaction of students with EP training;*
  - *the educational environment and support services and their relevance to the objectives of the LO.*
- *The management of the SE should demonstrate a systematic approach to monitoring and periodic assessment of the quality of the EP.*
- *The GO, the management of the SO should establish a mechanism for informing all stakeholders of any*

planned or taken actions in relation to the AO.

- *All changes made to the OP must be published.*

Evidence

Astana IT University monitors and evaluates EPs to ensure that the goals are achieved and the needs of students are met, the labor market and the focus of the developed mechanisms on the continuous improvement of EPs. Monitoring and periodic evaluation of EPs are aimed at achieving the goals and fully shaping the planned learning outcomes in EP 6B06107 Mathematical and Computational Sciences, EP 6B07101 Industrial Internet of Things, EP 6B07102 Electronic Engineering.

The University has defined requirements for the format of monitoring and periodic evaluation, including the effectiveness of EP, which are carried out on the basis of the following regulatory documents:

Academic Policy;

Regulations on the organization of the educational process on the credit technology of education;

Rules for the development of EP (link).

The grounds for monitoring the OP are:

updating of the State Educational Standards of Higher Education;

the introduction of new professional standards;

analysis of the labor market and employers' proposals;

changes in regulatory requirements for the development of EP;

the results of research activities of teaching staff and modern pedagogical research;

study of the experience of leading domestic and foreign universities;

results of the survey of students.

The process of monitoring and periodic evaluation of the implemented programs, carried out both at the academic and administrative levels.

At the academic level, the following are involved in the management of EP 6B06107 Mathematical and Computational Sciences, EP 6B07101 Industrial Internet of Things, EP 6B07102 Electronic Engineering: Departments of Educational Programmes, the Department of Academic Activities, the Department of Quality Assurance, the Admissions Committee, collegial governing bodies of the University (Rectorate, Academic Council, EMC), etc.

The control of educational programs provides for the assessment of curricula, as well as work programs and methodological developments in the context of disciplines. The quality control system successfully operates in accordance with the developed internal regulatory documents of the university, such as: the Academic Policy of Astana IT University LLP, the Rules of Academic Honesty of Astana IT University LLP, the Rules for the Organization of the Educational Process on the Credit Technology of Education of Astana IT University LLP, the Rules on the Organization of Educational and Methodological Activities of Astana IT University LLP, the Regulation on the Verification of Written Works for the presence of plagiarism of Astana IT University LLP, the Rules for organizing and conducting interim certification of students of Astana IT University LLP, the Rules on the assessment system for students of Astana IT University LLP, etc.

At the meetings of the EP departments, the content of the discipline and the results of training are submitted for consideration. Changes made to the curriculum can be due to various reasons:

- in connection with changes in state standards or other changes in the legislation on education in order to improve the quality of training graduates;

- in connection with the desire to optimize the content and structure of the variable part of the disciplines of the curriculum, to meet the needs of students, employers, taking into account the development of science and other areas.

Updating the content of the University's educational programs on a systematic basis is carried out with the participation of external experts and consumers of the EP represented by employers, representatives of large ICT companies, students and other stakeholders to adjust the EP. The mechanism of attraction is implemented through the functioning of Academic Committees in the field of training, which include representatives of the labor market, experienced teachers and students. According to EP 6B06107 Mathematical and Computational Sciences, EP 6B07101 Industrial Internet of Things, EP 6B07102 Electronic Engineering, etc. in order to continuously improve the content and structure of EP.

In 2023–2024, the representation of employers and representatives of large companies has been expanded in order to continuously improve the content and structure of the EP. Thus, the following employers were involved in the monitoring as members of the Academic Committee:

On OP 6B06107 Mathematical and Computational Sciences Mussalim Kaisar, Media Monks Kazakhstan LLP, Junior Data Analyst, Aidarov Kanat, Kar-Tel LLP, Software Lead Engineer, Tanekeyev Gabiden, TengriLab, Executive Director LLP, Akbergenov Yerkin Medetovich, Executive Director of TengriLab LLP.

According to OP 6B07101 Industrial Internet of Things Mukhamedrakhimova A.R., Energy of the East LLP, National Service Company LLP (NSC LLP).

According to OP 6B07102 Electronic Engineering, A.R. Mukhamedrakhimova, Energia Vostoka LLP, National Service Company LLP (NSC LLP).

Continuous improvement of the content and structure of the EP is also carried out through the participation of teaching staff and students in the work of the collegial bodies of the University, the UMC, the Rectorate, on the agenda of which issues of improving the content and conditions for the implementation of the EP of the university are regularly considered. (considered at the meeting of the CS (Minutes No 7 of December 28, 2023)

Monitoring is carried out in order to determine the compliance of the components of the EP - its purpose, content, teaching and teaching methods, final learning outcomes, its compliance with the established requirements, how the EP meets the needs of stakeholders. Monitoring also determines the compliance of the EP with regulatory legal acts in the field of education, the relevance of the EP with its scientific validity, prospects and ways of its development. Monitoring of the EP is also carried out through extended meetings of the EP Departments and open presentations with the participation of external experts, employers in order to make adjustments to the content of the EP. To determine the necessary basic and specialized disciplines, the directors of the Departments of the Bachelor's Programme hold meetings of the Academic Committees with the involvement of all stakeholders of the educational process represented by faculty, employers and students. The subject of discussion was also the issues of Improving the content of general education disciplines in the training of highly qualified personnel for the ICT sector (CS Minutes No 7 of December 28, 2023). Development of educational programs based on professional standards, taking into account the practice-oriented approach in the educational process of the university. (Minutes of CS No 3, October 30, 2023) etc.

A special role in ensuring the monitoring and periodic assessment of the EP is also played by the Educational and Methodological Council of the University, at the meetings of which issues of the quality of education, an analytical report on the progress of students are discussed; the results of surveys of students' satisfaction with the quality of teaching; the use of innovative teaching methods; feedback form with employers and much more. The quality of the educational process is ensured by the creation of working groups or committees that check the content of syllabuses, educational material, analysis of compliance with assessment criteria, monitoring of classes, analysis of the results of intermediate certifications, etc.

Monitoring of students' satisfaction with the quality of teaching is a key factor in the implementation of EP and is carried out by conducting a survey of students after each trimester. The Institutional Research Plan of the University has been developed, in accordance with which students were surveyed "Teacher through the eyes of students", "Satisfaction with the quality of teaching", etc. (Minutes of the meeting of the Rectorate No 11 of February 5, 2024)

The revision and adjustment of the content of the existing EPs taking into account changes in the labor market, the requirements of employers and the social demand of society, as well as based on the results of monitoring, is carried out on a systematic basis. The review and adjustment of the content of the existing EPs consists of the following stages:

monitoring of labor market needs. Depending on the nature of the adjustments, changes can be made to the curriculum, the EP passport, the content and teaching volume of disciplines;

making adjustments to competencies and learning outcomes that comply with descriptors, regulations, professional standards;

approval of changes by the decision of the Academic Council of the University

Making changes to the Register of SEs

Taking into account the directive documents of the Ministry of Education and Science of the Republic of Kazakhstan, the current state of science and technology and the decisions of the Academic Council of the University, the content of the university component and elective disciplines of the working curricula is annually re-approved to ensure the quality of training competitive graduates.

Based on the results of the monitoring of the educational programs, educational programs are updated annually, changes can be made taking into account the current situation in the field of information technology, the experience gained last year. Changes can be made to the educational programme, the catalogue of elective disciplines and the model of the graduate of the educational programme in accordance with the development plan of the educational programme.

To monitor and periodically evaluate its educational programs, the University uses the following methods as intra-university control: current control of students' progress, intermediate certification, final certification, assessment of all types of practice, verification of the state of methodological support of the educational process, collection and analysis of data on the satisfaction of stakeholders, internal audits.

The student's progress is determined in accordance with the Rules for the organization of the educational process on credit technology of education based on the results of mastering the credits of disciplines reflected in the transcript in the form of points corresponding to the digital equivalent on a four-point system, and GPA.

Monitoring of students' progress is monitored by the dean's office, the office registrar and the academic department. Throughout the entire period of training, periodic control of knowledge, skills and abilities acquired by students in the learning process is carried out. The resulting cross-section of knowledge is analyzed by the dean's office, the department of academic activities and considered at meetings of the dean's office, the educational and methodological council, and the academic council of the university.

Information about the educational achievements of students is stored and processed in the portal, and students are ranked by GPA scores. The personal growth and development of the student in the process of mastering the EP is tracked according to the results of intermediate and final controls, in the form of test tasks, oral and written surveys. The results are entered into an electronic grade book on the portal, which are reflected in the student's personal account. The teacher also fills out an electronic attendance journal in LMS Moodle, which reflects the entire period of student training, taking into account the threshold level of attendance. Upon completion of the educational program, the student confirms the knowledge gained by passing a

comprehensive exam, defending graduation works (diploma work/project, master's thesis/project). Learning outcomes in each discipline are evaluated according to the criteria reflected in the syllabus of the discipline. During the trimester, students pass two midterm controls (midterm – at week 5 and endterm – at week 10). The personal growth and development of the student in the process of mastering the EP is tracked according to the results of intermediate and final controls, in the form of test tasks, oral and written surveys. The specific weight of these forms of control is determined by the higher education institution independently. 60% of the total amount of the final grade is allocated for current control, and 40% of the total amount of the final grade is allocated for the final control. The final grade is set for each discipline separately in percentage content on a 100% scale. Current control is a systematic check of the educational achievements of students on a topic or section according to the syllabus conducted by the teacher in current classes. The points received for international tests and exams are reflected in the LMS MOODLe and, after the final grade is displayed, are displayed in the student's transcript.

The forms of current control are determined by the teacher, taking into account the contingent of students, the content of the educational material and the educational technologies used. Methods of current control are chosen by the teacher, based on the specifics of the academic discipline, formed professional and general competencies.

At the end of each semester, the Office of the Registrar analyzes the grades in the context of EPs at all levels of education: the average grade of the EP and quantitative data on grades according to the letter system are displayed. The results are discussed at meetings of collegial bodies (MA Minutes No 7 of December 28, 2023). The results of the analysis are used for more thorough analyses and approaches in the assessment locally at the Departments of the EP.

To ensure the quality of graduate works at all levels of education, the University provides a system for checking graduate works for illegal borrowings. For this purpose, the university has purchased a plagiarism checking system through the Strike Plagiarism platform It should be noted that this platform is actively used by teachers in all courses to check written works. The results of midterm controls are discussed and analyzed at meetings of the departments of the OP and the dean's office. The results of intermediate certification (exams in the discipline) are analyzed by the Office of the Registrar and the Dean's Office, and are submitted for discussion by the Academic Council of the University.

As an experiment in the 2021-2022 academic year, the university introduced an integral GPA of students.

AITU has implemented the Integral Grade Point Average (IGPA) system. The Integral Grade Point Average (IGPA) is a comprehensive assessment of a student's academic achievements. , "Regulations on the System of Assessment of Social Competencies of Students (Social Competition Indicators - SCI) of Astana IT University LLP".

Constant monitoring, periodic evaluation and revision of the university's educational programs are aimed at ensuring their effective implementation and creating a favorable learning environment for students. To create a favorable and effective learning environment for students, the university monitors feedback through questionnaires: "Satisfaction of students with the quality of educational services", "Identification of the degree of social activity of 1st year students", "Determination of the availability of conditions and adaptability to learning of 1st year students", "Satisfaction of students with the quality of teaching, learning conditions and living in university dormitories", etc.

EP departments have developed programs for each type of professional practice according to the profile of the EP. The programs reflect the specifics of the type of practice, are periodically updated, reflect modern achievements in applied areas using innovative technologies.

Analysis of changes in the labor market is carried out through the analysis of websites (hh.kz., enbek.kz), where vacancies are published in order to identify relevant skills in the context of educational programs.

Analytical part

The analysis shows that the management of an educational institution is actively reviewing the structure and content of educational programs, taking into account changes in the labor market and interacting with employers. There is documentary evidence that curricula and teaching materials are updated every year. At the same time, the management takes into account the changing requirements of the professional environment, the latest scientific achievements, as well as the feedback of students and the dynamics of their academic success.

In the course of the implementation of activities on educational programs (EP), all interested parties are informed: the management of the EP transmits information to the faculty through discussions at the meetings of the department; employers receive information through various communication channels, including the Internet, where they are provided with the developed EPs for discussion and review; Representatives are also invited to discuss key issues at conferences and open days. Students receive all the necessary information from their consultants (advisers), and can also contact the EP management for additional explanations.

At the same time, the EEC members note that the published EPs contain blank sheets of amendments and additions, which may indicate that all stakeholders were not promptly informed about the adopted (or planned to adopt) changes to the EP.

Strengths/Best Practices:

Strengths have not been identified.

Recommendations of the EEC:

The university administration should ensure that all stakeholders are informed about the changes made and planned to be made to the EP, with the ability to establish the nature of the decisions made on the website of the educational institution. Deadline - no later than two weeks from the date of making changes

Conclusions of the EEC on the following criteria:

According to the standard "Continuous Monitoring and Periodic Evaluation of Educational Programs", 10 criteria have been disclosed, of which according to EP 6B06107 Mathematical and Computational Sciences, EP 6B07101 Industrial Internet of Things, EP 6B07102 Electronic Engineering have 9 satisfactory positions, 1 requires improvement.

6.5. Standard "Student-Centered Learning, Teaching and Assessment"

• The management of the EP should ensure respect and attention to various groups of students and their needs, providing them with flexible learning paths.

• The management of the EP should ensure the use of various forms and methods of teaching and learning.

• An important factor is the availability of our own research in the field of teaching methods of educational disciplines of educational programs.

• The management of the EP should demonstrate the existence of a feedback system on the use of various teaching methods and assessment of learning outcomes.

• The EP leadership must demonstrate support for the autonomy of learners while providing guidance and assistance from the teacher.

• The management of the program must demonstrate the existence of a procedure for responding to students' complaints.

• The PO should ensure that the learning outcome assessment mechanism for each EP, including appeal, is consistent, transparent and objective.

• The EI must ensure that the procedures for assessing the learning outcomes of students of the EP comply with the planned results and goals of the program, and that the criteria and methods of assessment are published in advance.

• The EI should determine the mechanisms for ensuring the achievement of learning outcomes by each graduate of the EP and ensure the completeness of their formation.

• Assessors must be proficient in modern methods of assessing learning outcomes and regularly improve their qualifications in this area.

Evidence

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

1) The student creates his own curriculum for each semester, using the standard curriculum and the catalog of educational disciplines. The choice of an individual educational path is determined on the basis of general, basic and elective courses, as well as practices aimed at developing professional skills. On the main page of the university's website, in the section "For Applicants" - "List of Educational Programs" there is a list of educational programs, which publishes information on available educational programs, a description of the educational program, lists of compulsory and elective disciplines, the purpose of the educational program, the list of specialist positions, the Competence model (portrait) of the graduate. At the university, according to accredited EP IE of students, they are drawn up in the language of instruction of the student.

2) The student has the opportunity to participate in academic mobility, studying at other universities both within the country and abroad, with the subsequent credit of the studied disciplines and their inclusion in the transcript.

3) Information about the training, assessment system, passing scores and learning opportunities provided to students is provided in the "Academic Policy"

4) Interaction with employers on the issues of internships, internships, employer's participation in the organization of the educational process, organization of events, consulting activities on employment issues is carried out by the "Career and Employment Center": https://astanait.edu.kz/center-karyery-i-trudoustr/ . Monitoring of the passage of professional internships is carried out by the dean's office, the departments of the educational programs together with the Career and Employment Center. The internship is regulated by the "Regulations on the organization and conduct of internships for students of Astana IT University".

Based on the results of the practices conducted at the enterprise, students submit a report, which is defended before the commission created by the order of the dean. And also the quality assurance department conducts a survey among managers from enterprises in order to obtain feedback. One of the main tasks of the CCT of the university is to ensure the employment of graduates and maintain further relations. A data bank on their distribution is formed for all graduates, including the following information: name, address of the organization to which the graduate is assigned, as well as the expected position.

The management of the EP ensures the harmonious development of students, taking into account intellectual development and individual characteristics. Individual characteristics and needs of students, of course, affect the implementation of EP, since they determine the choice and development of elective courses, the choice of practice bases, and the independent determination of research topics. In addition, the university conducts entrance testing for the level of knowledge of a foreign language, to distribute newly entered students into groups in their respective groups. In the case of a high level of knowledge of English, courses for teaching other foreign languages are offered. Also, in the case of a student's participation in world programming competitions, some disciplines that imply knowledge in this area are recounted, for example, the disciplines - Algorithms and Data Structures.

Experts confirm that the design of the EP is based on a student-centered approach, which

involves the use of an individual learning trajectory, academic mobility, and the development of competencies in accordance with learning outcomes. As established, based on the results of interviews with students, information about the discipline, its goals, the composition of the subject, assessment procedures, passing scores and educational opportunities provided to students is given in the syllabuses of disciplines that are available to students in the information system of the university.

During the interview with teaching staff and students, the experts found that in order to deepen students' knowledge in major disciplines, the Center of Competence and Excellence, together with the dean's office and coordinators of educational programs for students, organized courses from Cisco (CCNA Rounting and Switching: Networking Essentials and NDG Linux Essentials), upon completion of which students have the opportunity to receive certificates from the vendor.

The procedure for responding to student complaints begins with receiving the complaint through a specific communication channel, such as email, an online feedback form, or a personal appeal to the responsible person. After receiving the complaint, it is registered and submitted for consideration to the competent authority of the university or a special commission. The university website has a rector's blog, where each student can ask questions to the management.

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

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

In the process of training, the generally accepted criterion in world practice on the scale of letter and numerical designations is used, reflecting the mechanism for the implementation of credit transfer based on the ECTS credit system. In accordance with this scale, grades are given at oral and written exams.

AITU has implemented the Integral Grade Point Average (IGPA) system. The Integral Grade Point Average (IGPA) is a comprehensive assessment of a student's academic achievement. The Regulation on the System of Assessment of Students' Research Competencies (ROS - Research-Oriented Study of Astana IT University LLP), "Regulation on the System of Assessment of Social Competencies of Students (Social Competition Indicators - SCI) of Astana IT University LLP" is regulated by the Internal Rules of Internal Affairs. IGPA consists of three components and is calculated according to the formula: IGPA = GPA*0.5 + iROS*0.35 + SCI*0.15, where the Grade Point Average (GPA) is the weighted average assessment of the student's level of academic achievement for a certain period in the selected program (the ratio of the sum of credits to the digital equivalent of the final grade points for all types of academic work to the total number of credits for these types of work for a given period of study).

Indicators of Research-Oriented Study (iROS) is a set of skills and competencies of a student acquired by them in the process of research and project activities, measured by indicators and demonstrated by their average score of research skills.

Social Competition Indicators (SCI) is a set of skills and competencies of a student acquired in the process of social activities, measured by indicators and demonstrated by his average score of social competencies.

The procedure for assessing students is regulated by the "Rules for the Student Assessment System", as well as the "Rules for Conducting the Final Certification of Students of Astana IT University".

Information about student progress is stored and processed in an online portal where students are evaluated against IGPA scores. Students' progress and development are tracked through intermediate and final controls in the form of tests, surveys and other tasks. The results are entered into an electronic grade book on the portal and displayed in the student's personal account. In addition, teachers keep an attendance log in LMS Moodle, which reflects the activity of students in class. Upon completion of the educational program, students confirm their knowledge by

passing exams and defending their graduation theses. Grades are given in accordance with the criteria specified in the curricula, and progress is monitored through midterm and final controls. The overall assessment is formed from the results of all control activities, and the current control has a greater weight (60%) than the final control (40%). In addition, a student needs to attend 70% of all classes in the discipline to be able to pass the exam.

Practitioners with experience in the relevant IT sectors are widely involved in conducting classes. Guest lectures were held by invited experts and companies represented by Askhar Musa - Chief Expert of the Center of Expertise of the National Agency for the Development of Innovations "QazInnovations" JSC on the topic "Promoting the development of the innovative and technological potential of the country", Seitkazin Darkhan - Deputy Director of the Project Management Group "Fostering Productive Innovations" of the World Bank and MDDIAI of the Republic of Kazakhstan on the topic Commercialization of Innovations.

The university invites foreign specialists from near and far abroad to implement the internationalization program and conduct training sessions. In the 2022-2023 academic year, 80 students were sent to partner universities for academic mobility: INHA University, South Korea – 22, Kyungpook National University, South Korea – 7, University of Latvia, Latvia – 3, Beijing Institute of Technology, China – 10, Schmalkalden University of Applied Sciences, Germany – 21, Istanbul Aydin University, Turkey – 3, University of Ankara, Turkey – 1, Lawrence technological University, USA – 12, Cracow University of Technology, Poland – 1.

At the end of 2023, 68 international students from 11 countries (Afghanistan, Bangladesh, China, Mongolia, Nigeria, Pakistan, Russia, USA, Turkey, Uzbekistan, Ukraine) are studying at AITU.

Analytical part

Based on the results of interviews, attendance of classes and analysis of EEC documents, it was revealed that the teaching staff of an educational institution actively uses a variety of teaching methods, takes into account the variety of forms of information assimilation, and the presence of indicators among teachers for new methods of assessing the achievements of students within the framework of certain educational programs is noted. The following classes were attended within the framework of accredited EPs: Analog electronics (lecture), Circuit Theory (laboratory work). Thus, in the course of laboratory work in the discipline Circuit Theory, the teacher Ilyas Tursynbek named the goal and objectives of laboratory work in accordance with the syllabus of the discipline, analyzed two schemes for calculating the parameters of the circuit and formulated the main results that students should present in the report. The first part of the laboratory work was the construction and calculation of circuits in Tinkercad, the second stage involved assembling the circuit on a physical model. The teacher answered all the questions asked by the students.

In the course of the work of the EEC, it was not established that the university regularly conducts a variety of training seminars, guest lectures by foreign scientists.

A survey of students conducted during the EEC visit showed that:

Students express complete satisfaction:

a) the quality of teaching in general - 44% (11 respondents), partially - 40% (10 respondents);

b) the requirements of the teaching staff for the student - 40% (10 respondents), partially - 36% (9 respondents);

c) the objectivity of the assessment of knowledge, skills and other educational achievements - 44% (11 respondents), partially - 32% (8 respondents);

d) quality of examination materials (tests and examination questions) – 52% (13 respondents), partially – 36% (9 respondents).

Strengths:

Strengths have not been identified.

Recommendations of the EEC:

No recommendations were identified.

Conclusions of the EEC on the following criteria:

According to the standard "Student-Centered Learning, Teaching and Assessment", 10 criteria have been disclosed, of which according to EP 6B06107 Mathematical and Computational Sciences, EP 6B07101 Industrial Internet of Things, EP 6B07102 Electronic Engineering 10 have a satisfactory position.

6.6. Standard "Students"

• The EI must demonstrate the existence of a policy for the formation of the contingent of students in the context of the EP, ensure the transparency and publication of its procedures regulating the life cycle of students (from admission to completion).

• The management of the EP should determine the procedure for the formation of the contingent of students based on:

- *minimum requirements for applicants;*
- *maximum group size for seminar, practical, laboratory and studio classes;*
- *forecasting the number of government grants;*
- *analysis of available material and technical, information resources, human resources;*
- *analysis of potential social conditions for students, including the provision of places in the dormitory.*

• The leadership of the program must demonstrate its readiness to conduct special adaptation and support programs for newly enrolled and foreign students.

• The NGO must demonstrate the compliance of its actions with the Lisbon Recognition Convention, the existence of a mechanism for the recognition of the results of academic mobility of students, as well as the results of additional, formal and non-formal education.

• The PO should cooperate with other educational organisations and national centres of the "European Network of National Information Centres for Academic Recognition and Mobility/National Academic Recognition Information Centres" ENIC/NARIC in order to ensure comparable recognition of qualifications.

• The EI should provide opportunities for external and internal mobility of students of the EP, as well as readiness to assist them in obtaining external grants for training.

• The management of the EP must demonstrate readiness to provide students with internships, promote the employment of graduates, and maintain contact with them.

• The EI should provide for the possibility of providing EP graduates with documents confirming the qualifications obtained, including the learning outcomes achieved, as well as the context, content and status of the education received and evidence of its completion.

Evidence

Astana IT University has demonstrated its policy of forming a student body from the moment of admission to graduation, ensuring the transparency of all processes. The procedures governing all stages of the student life cycle are defined, approved and published in the "Rules for admission to Astana IT University for undergraduate educational programs". Admissions policies and procedures align with the university's mission, vision, and strategic goals, and are officially available on its website. Processes have been developed that correspond to the goals of forming a single student contingent, accepting documents and conducting enrollment procedures in accordance with the requirements of the Republic of Kazakhstan.

In addition, the university imposes additional requirements on applicants applying for training in the form of the "AITU Excellence Test" (AET), which is a comprehensive exam consisting of two modules: English; the basics of computer science and logic. At the same time, persons who have the following valid international certificates (originals) confirming knowledge of the English language in accordance with the Common European Competences (Standards) are exempt from passing the module ("English"): International English Language Testing System (IELTS), threshold score - at least 5.0, Test 0f English as and Foreign Language Institutional Testing Program (TOEFL TTP) - at least 460 points; Test of English as a Foreign Language

Internet-based Test (TOEFL), cut-off score 46-59; Aptis certificate, with a result corresponding to level B 1; Duolingo certificate with a score of 75 or higher B-1 level certificates issued by InterPress language centers in Nur-Sultan, Almaty and Karaganda in 2021. Holders of certificates issued by AITU based on the results of the AITU IQYN Olympiad in English are also exempt from passing the module ("English"). Participants of the "Fundamentals of Computer Science" Olympiad, winners of the Republican Olympiad in Mathematics and Informatics, are exempt from passing the module "Fundamentals of Computer Science". The threshold score for admission to Astana IT University is 70 points.

Applicants are informed about the requirements and features of training programs before the start of training through open days and familiarization with the materials of educational programs and sets of student documents. During the first weeks, newly enrolled students undergo adaptation programs, they are introduced to the academic policy of the university, the structure of individual curricula, the process of electing disciplines, information about GPA, academic mobility, the rules for transferring credits, with the features of social and educational work, the Internal Regulations, the Rules of Academic Integrity, the activities of the Student Government. educational process, adapt to the requirements of the university and form an idea of knowledge and future professional activity.

The purpose of academic mobility is the integration of university programs into the international educational space through the use of innovative, world educational resources and borrowing the best teaching methods and practices. mobility is implemented in accordance with the "Regulations on Academic Mobility" and "Rules for the Recognition of Learning Outcomes in Formal and Non-Formal Education". The Department of International Cooperation publishes information in the media (telegram channel, Instagram and on the website of the university) about the competition for studying abroad within the framework of academic mobility (bachelor's degree). To ensure that all students are 100% informed, the staff of the Department of International Cooperation organizes information sessions for 1st year students.

The university administration has taken steps to conclude contracts for conducting practical classes at the enterprises of the industry. Thus, the practice bases are within the framework of EP 6B06107 Mathematical and Computational Sciences of KMGengineering LLP, the National Center for Biotechnology, ForteBank JSC, Kaspi Bank, BTS Digital, the Institute of Mechanics and Mechanical Engineering named after Academician U.A. Dzholdasbekov, the Institute of Mathematics and Mathematical Modeling; EP 6B07101 Industrial Internet of Things Karachaganak Petroleum Operating BV (KPO BV), National Service Company LLP (NSC LLP), SAPA Software LLP, 4.Astana-Teplotranzit LLP, ICMG LLP (MUNAI GAS Engineering Company llp, Automation Technology and Solutions LLP, RSE on REM "Engineering and Technical Center Administrative Department of the President of the Republic of Kazakhstan", Transtelecom JSC, Transtelecom Aktau JSC; EP 6B07102 Electronic Engineering Karachaganak Petroleum Operating BV (KPO BV), National Service Company LLP (NSC LLP), SAPA SOFTWARE LLP, Astana-Teplozranzit LLP, ICMG LLP (MUNAI GAS ENGINEERING COMPANY LLP, Automation Technology and Solutions LLP, RSE on the REM "Engineering and Technical Center Administrative Department of the President of the Republic of Kazakhstan", Transtelecom JSC, Transtelecom Aktau JSC.

The university has done work to expand the geography of internal and external academic mobility, so it has signed agreements with foreign universities Youngsan University (South Korea), The Hong Kong Polytechnic University (Hong Kong), Dortmund University of Applied Sciences and Arts (Germany), Inha Germany University (South Korea), University of Cassino and Southern Lazio (Italy), Kyungpook National University (South Korea), Beijing Institute of Technology (China), Taras Shevchenko National University of Kyiv (Ukraine), Kyiv National University of Construction and Architecture (Ukraine), KU Leuven (Belgium), University of

Latvia (Latvia), Geneva Information Technology Institute (Switzerland), Shmalkalden University of Applied Sciences (Germany), etc., which is a favorable condition for enhancing the participation of students in academic mobility programs.

The website in the "Global" section (https://astanait.edu.kz/international-relations/) provides information on the forms of academic mobility.

Analytical part

The university follows the policy of forming a contingent of students that complies with the legislation of Kazakhstan and is based on transparency, unity and consistency. In order to attract more applicants, the institute actively informs about its activities and the specialties offered. It also establishes procedures to ensure that students are fully supported at all stages of their studies, from admission to graduation.

During the interview, the management of educational programs indicated their readiness to provide students with places for internship.

The university provides opportunities for both internal and external mobility of students of accredited study programs. To strengthen this cooperation, memoranda have been signed and contracts have been drawn up. Based on the application, the university determines the terms of study, language and specialty.

Based on the results of the survey, teaching staff evaluate:

- the level of created conditions that take into account the needs of different groups of students - 25% (4 respondents) "Very good", 68.8% (11 respondents) - "Good";

- compliance of students' knowledge obtained at this university with the realities of the requirements of the modern labor market – 43.8% (7 respondents) "Very good", 56.2% (9 respondents) - "Good".

Based on the results of the questionnaire, students express full satisfaction:

- availability of academic consulting 48% (12 respondents), partial -48% (12 respondents);

- availability of counseling on personal problems 40% (10 respondents), partial – 40% (10 respondents);

- the level of accessibility of library resources is 56% (14 respondents), partial - 28% (7 respondents);

- existing learning resources 48% (12 respondents), partial – 40% (10 respondents);

- the quality of educational programs in the EP 44% (11 respondents), partial - 40% (10 respondents);

- 40% (10 respondents) are required by the teaching staff to the student, 36% are partially required.

Strengths/Best Practices:

Strengths have not been identified.

Recommendations of the EEC:

No recommendations identified

Conclusions of the EEC on the following criteria:

According to the "Students" standard, 12 criteria have been disclosed, of which according to EP 6B06107 Mathematical and Computational Sciences, EP 6B07101 Industrial Internet of Things, EP 6B07102 Electronic Engineering 12 have a satisfactory position.

6.7. Standard "Teaching Staff"

• The NGO should have an objective and transparent personnel policy, including in the context of the OP, including recruitment, professional growth and development of personnel, ensuring the professional competence of the entire staff.

• The NGO must demonstrate the relevance of the staffing potential of the faculty to the specifics of the OP.

• The management of the SE must demonstrate an awareness of responsibility for its employees and the provision of favorable working conditions for them.

• The management of the EP must demonstrate a change in the role of the teacher in connection with the transition to student-centered education.

• The NGO should determine the contribution of the Faculty of Educational Programs to the implementation of the development strategy of the NGO, and other strategic documents.

• The EI should provide opportunities for career growth and professional development of the teaching staff of the EP.

• The leadership of the EP must demonstrate a willingness to involve practitioners in the relevant fields in teaching.

• The EI should demonstrate the motivation for the professional and personal development of EP teachers, including encouragement for the integration of scientific activities and education, the use of innovative teaching methods.

• An important factor is the readiness to develop academic mobility within the framework of the EP, to attract the best foreign and domestic teachers.

Evidence

Recruitment at Astana IT University is carried out on the basis of an analysis of the needs of the EP in accordance with the regulatory indicators established by the Law of the Republic of Kazakhstan "On Education", "State Educational Standards of the Republic of Kazakhstan", approved by the Decree of the Government of the Republic of Kazakhstan dated 23.08.2012 No 1080, "Rules for the organization of the educational process on credit technology of education", approved by the Order of the Ministry of Education and Science of the Republic of Kazakhstan dated 20.04.2011 No 152, On Amendments to the Order of the Minister of Science and Higher Education of the Republic of Kazakhstan dated 20 November 2023 No 591 "On Approval of the Professional Standard for Teachers (Teaching Staff) of Higher and (or) Postgraduate Education Organizations" and "Standard Qualification Characteristics of Teachers' Positions", approved by the Order of the Ministry of Education and Science of the Republic of Kazakhstan dated 17.08.2009 No 5750, as well as the availability of regulatory internal regulatory documents of Astana IT University, such as the Rules for Competitive Filling of Positions of the Teaching Staff of Astana IT University", the Regulation on Key Performance Indicators (KPIs) of the teaching staff and employees of Astana IT University LLP, the Regulation on the competitive selection for the positions of high-research teacher of Astana IT University LLP, the functioning of the collegial bodies of the University - the Disciplinary Council, the Conciliation Commission. Assessment of the competence and business qualities of personnel is carried out at the time of hiring in accordance with the personnel policy of Astana IT University, focused on effective personnel support for the implementation of the university's strategy with a strong corporate culture, providing for the provision of unified approaches to working with personnel within the framework of the best corporate practice throughout the university. With applicants who have passed the competitive selection, employment contracts are concluded indicating the conditions of employment and work, and the document "Consent to the collection and processing of personal data" is also filled out. This document is stored in the personal file of each teaching staff and student. The teaching staff is formed taking into account the needs of the educational program and the total workload of the teacher and students. It meets the requirements of the Ministry of Education of the Republic of Kazakhstan and the regulations of the university. Information about the competition and the availability of a vacant position of the teaching staff and researchers is posted on the official website of the University of https://astanait.edu.kz/job-contest/, at least thirty calendar days before the deadline for accepting documents.

The level of competence of teachers is determined by their scientific achievements, publications in journals with a high impact factor, participation in conferences and the release of

educational literature. Their performance is evaluated through systematic internal evaluation, including open classes and follow-up visits. The criteria for evaluating the activities of the faculty are:

– educational work;
– educational and methodological work;
– organizational and methodological work;
– research work.

Staffing fully complies with the standards. The educational level of the teaching staff meets the requirements for the quality of training of specialists of the 1st EP cluster. The size and composition of the teaching staff correspond to the number of students and ensure effective interaction, as well as the provision of the necessary assistance and guidance in educational and research activities. The teachers involved in the training program of Cluster 1 have extensive experience in enterprises.

The qualitative and quantitative composition of the teaching staff of the EP for the 2023–2024 academic year in the context of EP 6B06107 Mathematical and Computational Sciences is 48%, 6B07101 Industrial Internet of Things is 44%, 6B07102 Electronic Engineering is 48%. Teachers who have received diplomas from foreign universities work successfully in the EP. Teaching staff of the EP Departments have been educated abroad at universities such as The University of Manchester, Bauman Moscow State Technical University, People Friendship University of Russia, Dnipropetrovsk National University named after O. Gonchar, Monash University, Melbourne, Hacettepe University (Ankara, Turkey), etc.

Practicing teachers are actively involved in the work, for whom the university administration has organized courses for immersion in the educational environment.

University teachers participate in the competition and become the owner of the state grant of the Ministry of Education and Science of the Republic of Kazakhstan "The Best Teacher of the University": in 2019, it was Associate Professor Amirgaliev B., in 2020 - Edilkhan D., in 2021 - Raikhan Madi, in 2022 - Ismailov N., Zhakiyev N., 2023 - Karashbayeva Zh., Kasenov Kh.N., Neftisov A.

As of December 2023, with the affiliation of AITU, 125 publications have been published in journals included in the Scopus database, 97 in the WoS database and 124 in scientific journals of the KKSNVO. AITU profile in Scopus https://www.scopus.com/affil/profile.uri?afid=60204069

Experts note the intensive research activity at the departments. The Department of Computing and Data Science is currently implementing four grant-funded projects for a total amount of 287 million tenge, as well as one project "Zhas Galym", in addition, contractual projects for a total of 14.06 million tenge are being implemented on the following topics: "Development of an integrated automatic early warning system for sewer overflows, clogging and vandalism based on sensors and GIS" (supervisor A. Neftisov) in the amount of 2 million tenge; "Study of an innovative microprocessor-based resource-saving relay protection device" (supervisor A. Neftisov) in the amount of 1.6 million tenge; "Services for modification and maintenance of the State Register of Carbon Units" (head D. Lebedev) in the amount of 8.96 million tenge. Conditions have also been created for the implementation of internal projects at the expense of the University's funding.

The university demonstrates the motivation for the professional and personal development of EP teachers, including a system of incentives for the integration of scientific activities and education, the use of innovative teaching methods through KPIs. The university has implemented the Regulation on Key Performance Indicators (KPIs) of teaching staff and employees of Astana IT University LLP.

Analytical part

An analysis of the stability of the quality of human resources over 5 years shows that the

university is systematically working on the training and hiring of scientific and pedagogical personnel. One of the features of this process is academic continuity, which, due to the relatively short period of the university's existence, is just entering the path of training its own personnel through doctoral studies and involvement in scientific and pedagogical activities. In this regard, EEC members note the lack of a personnel reserve of the university, which, in the aspect of interdisciplinary EPs, may lead to a shortage of teaching staff for highly specialized areas of training. The same aspect is confirmed by interviews and questionnaires of students who talk about problems with the selection of teachers and would like to have the opportunity to have a wider choice of teachers who implement the same or similar courses of disciplines.

To encourage scientific and pedagogical personnel, the university provides programs of academic mobility, foreign internships, joint scientific research with foreign partners and participation in international projects.

The university actively uses a system of control visits to classes by representatives of the department, where the main assessment criteria are knowledge of the subject, teaching methods, interactive teaching methods, the ability to structure the lesson and effectively use the teaching time.

An analysis of the qualitative and quantitative composition of teaching staff in personnel training allows us to draw the following conclusions: teachers widely use various teaching methods in the educational process. Innovative teaching technologies have been introduced covering all types of educational work (lectures, laboratory and practical, seminar classes), as well as teaching staff accredited by the EP, massive online courses are being developed, presented on the website of the university - https://learn.astanait.edu.kz/

According to the results of the survey, the teaching staff is rated as "Very good":

- compliance of the content of the EP with their scientific and professional interests and needs – 68.8% (11 respondents), good – 18.8% (3 respondents);

- opportunities provided by the university for the professional development of teaching staff - 75% (12 respondents), good - 25% (4 respondents);

- opportunities provided by the university for the career growth of teaching staff – 56.3% (9 respondents), good – 43.8% (7 respondents);

- support from the university for research initiatives of teaching staff – 50% (8 respondents), "good" – 50% (8 respondents);

- academic mobility - 43.8% (7 respondents), good - 56.3% (9 respondents);

- advanced training - 37.5% (6 respondents), good - 56.3% (9 respondents);

- use of educational innovations - 62.5% (10 respondents), good - 37.5% (6 respondents);

Strengths:

Strengths not identified

Recommendations of the EEC:

The management of the NGO to develop and implement activities aimed at systematic support and development of methodological and pedagogical skills of young teachers, especially from among practicing teachers. Deadline - until August 1, 2025

Conclusions of the EEC on the following criteria:

According to the "Faculty Staff" standard, 9 criteria have been disclosed, of which according to EP 6B06107 Mathematical and Computational Sciences, EP 6B07101 Industrial Internet of Things, EP 6B07102 Electronic Engineering 8 have a satisfactory position, 1 - requires improvement.

6.8. Standard "Educational Resources and Student Support Systems"

- *The EI should ensure that there are sufficient learning resources and student support services to ensure*

that the goal of the EI is achieved.

- *The EI must demonstrate the sufficiency of material and technical resources and infrastructure, taking into account the needs of various groups of students in the context of the EP (adults, workers, foreign students, as well as students with disabilities).*
- *The EP management should demonstrate that there are procedures in place to support different groups of learners, including information and counselling.*
- *The management of the SE must demonstrate the compliance of information resources with the specifics of the SE, including:*
  - *technological support for students and faculty (e.g., online learning, modeling, databases, data analysis programs);*
  - *library resources, including a fund of educational, methodological and scientific literature on general education, basic and major disciplines on paper and electronic media, periodicals, access to scientific databases;*
  - *examination of the results of research work, graduation works, dissertations for plagiarism;*
  - *access to educational Internet resources;*
  - *the functioning of WI-FI on the territory of the educational organization.*
- *The NGO demonstrates the planning of providing educational equipment and software similar to those used in the relevant sectors of the economy.*

Evidence

As a result of the online visit of the NGO, structural divisions and the analysis of supporting documents by EEC experts, it was found that Astana IT University has a sufficient material base, there are:

- 3 educational buildings (total area - 37.6 thousand m2; useful - 21.2 thousand m2, including educational - 18 thousand m2);
- 3 student accommodation for 450 places;
- 3 houses for teaching staff and employees;
- 5 modern educational and scientific laboratories FabLAB, Cisco, Huawei, Kaspersky, IPMA;
- 6 lecture halls, 63 classrooms (all classrooms are equipped with interactive projectors, computer equipment and audio-video systems);
- 20 innovative computer laboratories;
- 10 offices for startups;
- modern assembly hall for 450 seats;
- Electronic reading room for 50 seats;
- sports and gyms.
- Media center with television and radio broadcasting studios;
- a health center equipped with modern equipment and staffed by leading medical specialists;
- student canteen for 250 seats;
- corporate computer network;
- 250 Wi-Fi hotspots with free internet access;
- 1215 units of computers;
- IP telephony with a virtual PBX (120 IP phones).

For the current period, the number of personal workstations is 821 units, copying and duplicating equipment is 78 units, projectors are 85 units, the number of servers is 10 units. Classrooms are equipped with interactive whiteboards, motorized screens, and ordinary whiteboards.

The total area of the educational building is 37.6 thousand sq.m., including useful - 28.3 thousand sq.m., of which educational - 18 thousand sq.m. Dormitories (3 buildings) of the university are designed for 734 beds.

The university has modern educational laboratories Cisco, Huawei, Kaspersky, FabLab, 8 lecture halls, 27 classrooms, 37 computer classes, 17 educational and 4 specialized laboratories, a modern assembly hall for 450 seats, a reading room for 250 seats, sports and gyms. Specialized Laboratories for the implementation of EP Networking Cisco Academy, HUAWEI ICT Academy, Kaspersky lab, Multimedia Lab, FabLab, Computer Labs, etc.

The Scientific Library is located on the 1st floor. The total area of the library is 1203.01 m.2 Library and information services for teaching staff and students of the university are carried out on a subscription card, in the reading room, which are designed for 250 seats. The library is equipped with equipment for the automation of library services. In the reading room of the library, comfortable conditions have been created for the work of readers, 20 computers with Internet access have been installed, a WI-FI zone has been opened, which provides access to Internet resources.

All students are provided with access to the library's book fund, including educational, methodological and scientific literature in Kazakh, Russian and English, as well as foreign and domestic periodicals. Information support of the library is carried out within the framework of the "Scientific Library" section of the official website of the University of https://astanait.edu.kz/library/. The library's website provides an opportunity to search for literature in the electronic catalog in the automated library system "Mega-Pro".

The university has access to international research platforms, such as Clarivate, Web of Science, Scopus, in which our researchers are periodically published.

Within the framework of the memorandum of understanding and cooperation dated October 11, 2019, signed between Astana IT University and Cisco, a training laboratory with a hardware and software solution for Cisco Webex distance learning was opened at the university. Within the framework of the memorandum of understanding and cooperation dated September 27, 2019, signed between Astana IT University and Huawei, the Huawei ICT Academy was opened. Within the framework of the memorandum of understanding and cooperation signed between Astana IT University and Kaspersky Lab, an authorized training center has been opened.

The ATAMEKEN SPACE co-working business was opened (together with Atameken NCE).

Analytical part

As a result of the meetings with the management, teaching staff and students, the members of the EEC came to the conclusion that the university is systematically engaged in career guidance and student support. An educational environment conducive to the achievement of professional goals has been created, student representation in the management of the university has been ensured, feedback and information methods have been developed, and cultural and social life is supported.

The management of the programs, together with the university administration, regularly create conditions for providing the necessary resources and the availability of infrastructure for scientific research, practices, integration of science into the educational process and publication of the results of students' research work. The university is actively developing the material and technical base, keeping it up to date, taking into account the development of IT technologies and industry training.

To date, the university has prepared a project of a new campus, in connection with the planning of an increase in the number of students and the construction of an architectural environment accessible to all groups of students. Due to the peculiarities of the premises rented by the university for students with special educational needs, a barrier-free accessible environment is not implemented in all aspects. presented to persons with disabilities, the following has not been implemented: a warning corrugated and/or contrastingly painted surface across the entire width of the flight, openings of floor sections on the traffic paths in front of staircases, doorways, as well as before the turn of communication tracks; relief tactile designation of traffic paths, there is no bright contrasting marking on transparent door leafs.

According to the results of the survey, students are satisfied:

- *existing library resources of the university "completely" 56% (14 respondents);*
- *educational resources of the university - 48% (12 respondents);*

- *accessibility and quality of Internet resources - 40% (10 respondents);*
- *classrooms, classrooms for large groups - 44% (11 respondents);*
- *recreation rooms for students - 36% (9 respondents);*
- *available computer classes - 44% (14 respondents);*
- *existing scientific laboratories - 52% (13 respondents);*
- *quality of medical care - 32% (8 respondents);*
- *providing students with a dormitory - 40% (10 respondents).*

Strengths/Best Practices:

Strengths have not been identified.

Recommendations of the EEC:

The management of the NGO should supplement the internal regulatory documents of the university governing the organization of educational activities with sections in relation to persons with special educational needs, including persons with disabilities, as well as provide for an action plan to ensure the accessibility of the educational environment for such students. Deadline - until February 1, 2025

Conclusions of the EEC on the following criteria:

According to the standard "Educational Resources and Student Support Systems" there are 9 criteria, of which according to EP 6B06107 Mathematical and Computational Sciences, EP 6B07101 Industrial Internet of Things, EP 6B07102 Electronic Engineering 8 have a satisfactory position, 1 - needs improvement.

6.9. The "Public Information" Standard

- *The NGO must publish reliable, objective, up-to-date information about the educational program and its specifics, which should include:*
  - *the expected learning outcomes of the educational program being implemented;*
  - *qualification and (or) qualifications that will be awarded upon completion of the educational program;*
  - *approaches to teaching, learning, as well as the system (procedures, methods and forms) of assessment;*
  - *information about passing scores and learning opportunities provided to students;*
  - *information on employment opportunities for graduates.*
- *The management of the OP should provide for a variety of ways to disseminate information, including the media, information networks to inform the general public and stakeholders.*
- *Public awareness should include support and explanation of the country's national development programmes and the system of higher and postgraduate education.*
- *The NGO must demonstrate the reflection on the web resource of information characterizing it as a whole and in the context of educational programs.*
- *An important factor is the availability of adequate and objective information about the teaching staff of the EP.*
- *An important factor is to inform the public about cooperation and interaction with partners within the OP.*

Evidence

Astana IT University actively provides access to complete and reliable information about its activities, the rules for admitting applicants, forms and terms of study, as well as about international programs and partnerships. Teachers regularly take part in events aimed at informing applicants, students and the public.

Informing interested parties about educational programs and events taking place at Astana IT University is carried out in social networks (**https://www.instagram.com/astana_it_university/**, **https://t.me/aitu2020info**, **https://www.facebook.com/astanaituniversity**, **https://www.youtube.com/c/AstanaITUniversity?app=desktop**, **https://www.tiktok.com/@astana_it_university**.), as well as by means of the

https://astanait.edu.kz/ website, mailing by e-mail, the media, scientific journals, specialized events, publications and portals of the university's partners, the design of information stands, posters, banners, information booklets on the educational program, the placement of information on the university portal, the holding of meetings of the Academic Council. In addition, the university actively interacts with the public through publications in various media at the republican, regional and city level.

The official website of the university publishes information about the national development programs of the country and the educational system. The site is open to all users and provides access to a variety of information.

For feedback from the public, the university provides an opportunity to contact the rector through his personal blog on the main page of the site - https://astanait.edu.kz/rector-university/ .

Within the LMS (Learning Management System) systems of the university, learning management is implemented through the platforms Moodle, "Platonus", "Abitur" and "Digital University" as a tool for collecting and analyzing information. The integration of data by means of "Moodle" and "Abitur" provides information intended for the operational and strategic management of the university. The "Digital University" has a complete database of students at all levels of training and forms of training, teaching staff and other employees united in user groups with individual rights, with differentiation of access to information resources.

The student portal provides personalized information about personal data, achievements, academic performance, allows you to get acquainted with the syllabuses of disciplines and the standard curriculum; register for elective disciplines and form your own individual curriculum; view the transcript and schedule of training sessions; get access to the virtual classroom, and there is also the possibility of feedback on certain issues of information reliability.

Analytical part

EEC experts note that the management of the university and the teaching staff of the university's educational programs systematically inform the public and interested parties about the activities of the university by: posting information on the official website of the university; publications on social networks.

An analysis of the supporting documents and the university's website by EEC experts showed that the website pages do not provide complete information about the teaching staff in relation to accredited students, there is no information about their education, work experience, disciplines taught, areas of scientific interests, publications, advanced training, etc. Information on PPPs is in the public domain and does not allow external stakeholders to get acquainted with it. In this regard, the management of the OP should supplement the information about the teaching staff of the OP on the web page and make it publicly available.

A survey of students conducted during the EEC visit showed that 48% (12 respondents) are completely satisfied with informing students about the courses, EP and academic degree obtained; informing the requirements in order to successfully complete this educational program (specialty) - 44% (11 respondents).

Strengths/Best Practices:

Strengths have not been identified.

Recommendations of the EEC:

By the end of the 2023-2024 academic year, the university administration should ensure that all stakeholders have access to complete and up-to-date information on the university's website about the faculty, including: a list of disciplines taught, work experience, field of scientific activity, information on publication activity, etc.

Conclusions of the EEC on the following criteria:

According to the "Public Information" standard, there are 10 criteria, of which

according to EP 6B06107 Mathematical and Computational Sciences, EP 6B07101 Industrial Internet of Things, EP 6B07102 Electronic Engineering 9 have a satisfactory position, 1 – needs improvement

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

Strengths/Best Practices

According to the "Educational Program Management" standard:

The management of the EP has developed plans for the development of accredited EPs, taking into account the analysis of the relevance of the program, target indicators, time criteria and those responsible for their achievement are provided, risk analysis and SWOT analysis are presented, and the presented development plan has a logically built structure and content, convenient for developing a plan for specific actions on the part of the university.

According to the "Information Management and Reporting" standard:

Strengths have not been identified.

According to the standard "Development and approval of educational programs":

The university's website presents an implemented verbal and graphic representation of the graduate's model, which allows you to clearly determine his role and place in the future profession.

According to the standard "Continuous Monitoring and Periodic Evaluation of Educational Programs":

Strengths have not been identified.

According to the standard "Student-Centered Learning, Teaching and Assessment":

Strengths have not been identified.

According to the "Students" standard:

Strengths have not been identified.

According to the standard "Teaching staff":

Strengths have not been identified.

According to the standard "Educational Resources and Student Support Systems":

Strengths have not been identified.

According to the "Public Information" standard:

Strengths have not been identified.

(VIII) OVERVIEW OF QUALITY IMPROVEMENT RECOMMENDATIONS FOR EACH STANDARD

EEC Recommendations for **EP 6B06107 Mathematical and Computational Sciences, EP 6B07101 Industrial Internet of Things, EP 6B07102 Electronic Engineering*:***

According to the standard "Management of the educational program"

In the structure of the EP Development Plan, based on the SWOT analysis, the EP management should provide a section on the establishment of competitive or distinctive features of EPs to determine their uniqueness, as well as the individuality of the EP development plans, their consistency with national priorities in the relevant areas of knowledge and with the University Development Program. The deadline is January 1, 2025.

According to the standard "Information Management and Reporting"

No recommendations were identified.

According to the standard "Development and approval of the educational program"

No recommendations were identified.

According to the standard "Continuous monitoring and periodic evaluation of educational programs"

The university administration should ensure that all stakeholders are informed about the changes made and planned to be made to the EP, with the ability to establish the nature of the decisions made on the website of the educational institution. Deadline - no later than two weeks from the date of making changes

According to the standard "Student-centered learning, teaching and assessment"

No recommendations were identified.

According to the "Students" standard

No recommendations were identified.

According to the standard "Teaching staff"

The management of the NGO to develop and implement activities aimed at systematic support and development of methodological and pedagogical skills of young teachers, especially from among practicing teachers. The deadline is August 1, 2025.

According to the standard "Educational Resources and Student Support Systems"

The management of the NGO should supplement the internal regulatory documents of the university, regulating the procedure for organizing educational activities, with sections in relation to persons with special educational needs, including persons with disabilities, as well as provide for an action plan to ensure the accessibility of the educational environment for such students. Deadline - until February 1, 2025

According to the "Public Information" standard

By the end of the 2023-2024 academic year, the university administration should ensure that all stakeholders have access to complete and up-to-date information on the university's website about the faculty, including: a list of disciplines taught, work experience, field of scientific activity, information on publication activity, etc.

(IX) OVERVIEW OF THE RECOMMENDATIONS FOR THE DEVELOPMENT OF THE EDUCATIONAL ORGANIZATION

Not developed

(X) RECOMMENDATIONS TO THE ACCREDITATION COUNCIL

The external expert commission made a unanimous decision to recommend to the Accreditation Council to accredit the educational programs 6B06107 Mathematical and Computational Sciences, 6B07101 Industrial Internet of Things, 6B07102 Electronic Engineering of Astana IT University LLP for a period of 5 (**five**) years.

Appendix 1. EVALUATION TABLE "PARAMETERS OF THE SPECIALIZED PROFILE"

Conclusion of the external expert commission on quality assessment
6B06107 Mathematical and Computational Sciences, 6B07101 Industrial Internet of Things, 6B07102 Electronic Engineering
Astana IT University LLP

No p\n	№ p\n	Evaluation criteria	Position of the educational organization			
			Strong	Satisfying	Involves the improvement of	Unsatisfactory
Standard 1 "Management of the Educational Program"						
1	1.	The organization of higher and/or postgraduate education must have a published quality assurance policy that reflects the relationship between research, teaching and learning		+		
2	2.	The organization of higher and (or) postgraduate education must demonstrate the development of a culture of quality assurance, including in the context of EP		+		
3	3.	Commitment to quality assurance should apply to any activities carried out by contractors and partners (outsourcing), including the implementation of joint/double-degree education and academic mobility		+		
4	4.	The management of the OP demonstrates transparency in the development of the EP development plan, containing the timing of the start of implementation, based on the analysis of its functioning, the real positioning of the EP and the focus of its activities on meeting the needs of the state, employers, students and other stakeholders ***(include additional criteria in addition to the general criteria)***		+		
5	5.	The management of the EP demonstrates the existence of mechanisms for the formation and regular review of the EP development plan and monitoring its implementation, assessing the achievement of learning goals, meeting the needs of students, employers and society, and making decisions aimed at continuous improvement of the EP	+			
6	6.	The management of the SE should involve representatives of stakeholder groups, including employers, students and faculty, in the formation of the EP development plan		+		
7	7.	The management of the EP must demonstrate the individuality and uniqueness of the EP development plan, its consistency with national priorities and the development strategy of the organization of higher and (or) postgraduate education			+	
8	8.	The organization of higher and (or) postgraduate education should demonstrate a clear definition of those responsible for business processes within the EP, an unambiguous distribution of staff responsibilities, and the delineation of functions of collegial bodies		+		
9	9.	The management of the programme must provide evidence of transparency in the management system of the educational programme		+		
10	10.	The management of the SOE must demonstrate the existence of an internal quality assurance system for the SO, including its design, management and monitoring, their improvement, and fact-based decision-making		+		
11	11.	The management of the SE should manage risks, including within the framework of the SE undergoing initial accreditation, as well as demonstrate a system of measures aimed at reducing the degree of risk		+		

12	12.	The management of the programme should ensure the participation of representatives of employers, faculty, students and other stakeholders in the composition of the collegial governing bodies of the educational programme, as well as their representativeness in decision-making on the management of the educational programme		+		
13	13.	The PO should demonstrate innovation management within the OP, including the analysis and implementation of innovative proposals		+		
14	14.	The EP management must demonstrate evidence of readiness for openness and accessibility for students, faculty, employers and other stakeholders		+		
15	15.	The leadership of the EP should be trained in educational management programs		+		
		Total according to the standard	**1**	**13**	**1**	
Standard 2 "Information Management and Reporting"						
16	1.	The GS should demonstrate that it has a system for collecting, analysing and managing information using modern information and communication technologies and software and that it uses a variety of methods to collect and analyse information in the context of the LO		+		
17	2.	The management of the SOE must demonstrate that there is a mechanism for the systematic use of processed, adequate information to improve the internal quality assurance system		+		
18	3.	OP leadership should demonstrate fact-based decision-making		+		
19	4.	Within the framework of the EP, a system of regular reporting should be provided, reflecting all levels of the structure, including an assessment of the effectiveness and efficiency of the activities of divisions and departments, scientific research		+		
20	5.	The EI should establish the frequency, forms and methods of assessing the management of the EP, the activities of collegial bodies and structural units, top management, and the implementation of scientific projects		+		
21	6.	The NGO must demonstrate the determination of the procedure and ensuring the protection of information, including the identification of persons responsible for the reliability and timeliness of information analysis and data provision		+		
22	7.	An important factor is the availability of mechanisms for involving students, employees and teaching staff in the processes of collecting and analyzing information, as well as making decisions based on them		+		
23	8.	The management of the EP must demonstrate the existence of a mechanism for communication with students, employees and other stakeholders, as well as mechanisms for resolving conflicts		+		
24	9.	The PO should demonstrate that there are mechanisms in place to measure the degree of satisfaction of the needs of faculty, staff and trainees within the EP		+		
25	10.	The PA should provide for an assessment of the effectiveness and efficiency of activities, including in the context of the OP		+		
		The information to be collected and analyzed within the framework of the OP should take into account:				
26	11.	Key Performance Indicators		+		
27	12.	dynamics of the contingent of students in the context of forms and types		+		
28	13.	Academic Achievement, Student Achievement, and Expulsion		+		
29	14.	students' satisfaction with the implementation of the EP and the quality of education at the university		+		
30	15.	Availability of educational resources and support systems for students		+		
31	16.	The NGO must confirm the implementation of procedures for processing the personal data of students, employees and teaching staff on the basis of their documentary consent		+		
		Total according to the standard	**0**	**16**	**0**	
Standard 3 "Development and Approval of the Educational Program"						
32	1.	The PA should define and document the procedures for the development of the OP and their approval at the institutional level		+		
33	2.	The management of the EP should ensure that the content of the EP is consistent with the established goals, including the expected learning outcomes		+		

34	3.	The management of the OP must demonstrate the existence of mechanisms for revising the content and structure of the OP, taking into account changes in the labor market, the requirements of employers and the social demand of society		+		
35	4.	The management of the EP should ensure the availability of developed models of the EP graduate, describing the results of learning and personal qualities	+			
36	5.	The management of the SE must demonstrate the conduct of external examinations of the content of the EP and the planned results of its implementation		+		
37	6.	Qualifications awarded at the end of the EP should be clearly defined and correspond to a certain level of NSC and QF-EHEA		+		
38	7.	The management of the EP should determine the impact of disciplines and professional practices on the formation of learning outcomes		+		
39	8.	An important factor is the possibility of preparing students for professional certification (IS)		+		
40	9.	The management of the EP must provide evidence of the participation of students, faculty and other stakeholders in the development of the EP and ensuring its quality		+		
41	10.	The management of the EP must ensure that the content of academic disciplines and the planned results correspond to the level of study (bachelor's, master's, doctoral studies)		+		
42	11.	The structure of the EP should provide for various types of activities that ensure the achievement of the planned learning outcomes by students		+		
43	12.	An important factor is the correspondence of the content of the EP and the learning outcomes of the EP implemented by higher and (or) postgraduate education organizations in the EHEA		+		
		Total according to the standard	**1**	**11**	**0**	
Standard 4 "Continuous Monitoring and Periodic Evaluation of Educational Programs"						
44	1.	The EI should determine the mechanisms for monitoring and periodic evaluation of the EP to ensure the achievement of the goal and meet the needs of students, society and show the focus of the mechanisms on the continuous improvement of the EP		+		
		Monitoring and periodic evaluation of the OP should include:				
45	2.	the content of the program in the light of the latest scientific achievements in a particular discipline to ensure the relevance of the discipline taught		+		
46	3.	changes in the needs of society and the professional environment		+		
47	4.	workload, academic performance and graduation of students		+		
48	5.	Effectiveness of Student Assessment Procedures		+		
49	6.	expectations, needs and satisfaction of students with EP training		+		
50	7.	the educational environment and support services, and their relevance to the objectives of the EP		+		
51	8.	The management of the SE should demonstrate a systematic approach to monitoring and periodic assessment of the quality of the EP		+		
52	9.	The GO, the management of the SO should establish a mechanism for informing all stakeholders of any planned or taken actions in relation to the LO		+		
53	10.	All changes made to the OP must be published			+	
		Total according to the standard	**0**	**9**	**1**	
Standard 5 "Student-centered learning, teaching and assessment"						
54	1.	The management of the EP should ensure respect and attention to various groups of students and their needs, provide them with flexible learning paths		+		
55	2.	The EP management should provide for the use of various forms and methods of teaching and learning		+		
56	3.	An important factor is the availability of our own research in the field of teaching methods of educational disciplines of EP		+		
57	4.	The management of the EP should demonstrate the existence of feedback mechanisms on the use of various teaching methodologies and assessment of learning outcomes		+		

58	5.	The management of the EP must demonstrate the existence of mechanisms to support the autonomy of students with simultaneous guidance and assistance from the teacher		+		
59	6.	The management of the EP must demonstrate the existence of a procedure for responding to students' complaints		+		
60	7.	The PO should ensure consistency, transparency and objectivity of the learning outcome assessment mechanism for each EP, including the appeal		+		
61	8.	The EI must ensure that the procedures for assessing the learning outcomes of students of the EP comply with the planned results and goals of the program, and that the criteria and methods of assessment are published in advance		+		
62	9.	The EI should determine the mechanisms for ensuring the achievement of learning outcomes by each graduate of the EP and ensure the completeness of their formation		+		
63	10.	Assessors must be proficient in modern methods of assessing learning outcomes and regularly improve their qualifications in this area		+		
		Total according to the standard	**0**	**10**	**0**	
Standard 6 "Students"						
64	1.	The EI must demonstrate the existence of a policy for the formation of the contingent of students in the context of the EP, ensure the transparency and publication of its procedures governing the life cycle of students (from admission to completion)		+		
		The management of the EP should determine the procedure for the formation of the contingent of students based on:				
65	2.	minimum requirements for applicants		+		
66	3.	maximum group size for seminar, practical, laboratory and studio classes		+		
67	4.	forecasting the number of state grants		+		
68	5.	analysis of available material and technical, information resources, human resources		+		
69	6.	analysis of potential social conditions for students, including the provision of places in the dormitory		+		
70	7.	The leadership of the EP must demonstrate readiness to conduct special adaptation and support programs for newly enrolled and foreign students		+		
71	8.	The EI must demonstrate the compliance of its actions with the Lisbon Recognition Convention, the existence of a mechanism for the recognition of the results of academic mobility of students, as well as the results of additional, formal and non-formal education		+		
72	9.	The PO should cooperate with other educational organizations and national centres of the "European Network of National Information Centres for Academic Recognition and Mobility/National Academic Recognition Information Centres" ENIC/NARIC in order to ensure comparable recognition of qualifications		+		
73	10.	The EI should provide an opportunity for external and internal mobility of students of the EP, as well as readiness to assist them in obtaining external grants for training		+		
74	11.	The management of the EP must demonstrate its readiness to provide students with internship places, promote the employment of graduates, and maintain contact with them		+		
75	12.	The EI should provide for the possibility of providing EP graduates with documents confirming the qualification obtained, including the learning outcomes achieved, as well as the context, content and status of the education received and evidence of its completion		+		
		Total according to the standard	**0**	**12**	**0**	
Standard 7 "Teaching Staff"						
76	1.	The NGO should have an objective and transparent personnel policy, including in the context of the OP, including recruitment, professional growth and development of personnel, ensuring the professional competence of the entire staff			+	
77	2.	The NGO must demonstrate the compliance of the staffing potential of the faculty with the specifics of the OP		+		

78	3.	The management of the SE must demonstrate an awareness of responsibility for its employees and the provision of favorable working conditions for them		+		
79	4.	The leadership of the programme must demonstrate a change in the role of the teacher in connection with the transition to student-centred learning		+		
80	5.	The NGO should determine the contribution of the teaching staff of the SE to the implementation of the development strategy of the NGO, and other strategic documents		+		
81	6.	The NGO should provide opportunities for career growth and professional development of the teaching staff of the EP		+		
82	7.	The leadership of the EP must demonstrate its readiness to involve practitioners from the relevant sectors of the economy in teaching		+		
83	8.	The EI must demonstrate the motivation for the professional and personal development of EP teachers, including encouragement for the integration of scientific activities and education, the use of innovative teaching methods		+		
84	9.	An important factor is the readiness to develop academic mobility within the framework of the EP, to attract the best foreign and domestic teachers		+		
		Total according to the standard	**0**	**8**	**1**	
Standard 8 "Educational Resources and Student Support Systems"						
85	1.	The EI should ensure that there are sufficient learning resources and student support services to ensure that the goal of the EI is achieved		+		
86	2.	The EI must demonstrate the sufficiency of material and technical resources and infrastructure, taking into account the needs of various groups of students in the context of the EP (adults, workers, foreign students, as well as students with disabilities)			+	
87	3.	The EP management must demonstrate that there are procedures in place to support different groups of learners, including information and counselling		+		
		The management of the SE must demonstrate the compliance of information resources with the specifics of the SE, including:				
88	4.	technological support for students and faculty (e.g., online learning, modeling, databases, data analysis programs)		+		
89	5.	library resources, including the fund of educational, methodological and scientific literature on general education, basic and major disciplines on paper and electronic media, periodicals, access to scientific databases		+		
90	6.	examination of the results of research work, graduation works, dissertations for plagiarism		+		
91	7.	access to educational Internet resources		+		
92	8.	Functioning of Wi-Fi on the territory of the educational organization		+		
93	9.	The PO demonstrates the planning of providing the EP with educational equipment and software similar to those used in the relevant sectors of the economy		+		
		Total according to the standard	**0**	**8**	**1**	
Standard 9 "Public Awareness"						
		The NGO must publish reliable, objective, up-to-date information about the educational program and its specifics, which should include:				
94	1.	Expected learning outcomes of the educational program being implemented		+		
95	2.	qualification and/or qualifications to be awarded upon completion of the degree programme		+		
96	3.	approaches to teaching, learning, as well as the system (procedures, methods and forms) of assessment		+		
97	4.	information about passing scores and learning opportunities provided to students		+		
98	5.	Information on employment opportunities for graduates		+		
99	6.	The management of the OP should provide for a variety of ways to disseminate information, including the media, information networks to inform the general public and interested parties		+		
100	7.	Public awareness should include support and explanation of the country's national development programmes and the system of higher and postgraduate education		+		
101	8.	The EI must demonstrate the reflection on the web resource of information characterizing it as a whole and in the context of educational programs		+		

102	9.	An important factor is the availability of adequate and objective information about the teaching staff of the EP			+	
103	10.	An important factor is to inform the public about cooperation and interaction with partners within the OP		+		
Total according to the standard			**0**	**9**	**1**	
ALTOGETHER			**2**	**96**	**5**	

Appendix 2. PROGRAM OF THE VISIT TO THE EDUCATIONAL ORGANIZATION

AGREED
Acting Rector of Astana IT University
_____ S. M. Omirbaev
"__" _____ 2024

CLAIM
General Director of the Independent Agency for Accreditation and Rating
_____ Zhumagulova A. B.
"____" _____ 2024

PROGRAM
VISIT OF THE EXTERNAL EXPERT COMMISSION
INDEPENDENT AGENCY FOR ACCREDITATION AND RATING (IAAR)
AT ASTANA IT UNIVERSITY LLP
(international program accreditation)

Date of the visit: April 17–19, 2024

Cluster 1 (accreditation)	**6B06107 Mathematical and Computational Sciences,** **6B07101 Industrial Internet of Things,** **6B07102 Electronic Engineering**
Cluster 2 (accreditation)	**7M04104 Digital Public Administration and Services,** **7M06107 Media Technologies,** **8D04101 Project Management,** **8D06101 Computer Science**

Date and time	EEC work with target groups	Position and Surname, Name, Patronymic of the participants target groups	Contact Form
		April 16, 2024	
15.00–16.00 *(time to be specified)*	Preliminary meeting of the EEC *(discussion of key issues and the program of the visit)*	*IAAR External Experts*	Connect to a Zoom meeting https://us02web.zoom.us/j/4641732969 Conference ID: 464 173 2969
On track during the day	Arrival of members of the External Expert Commission		
18.00	Supper	*IAAR External Experts*	
		Day 1: April 17, 2024	
10.00-10.30	Distribution of responsibility of experts, solution of organizational issues	*IAAR External Experts*	Cabinet / room No S1.2.358 (EEC office) Connect to a Zoom meeting https://us02web.zoom.us/j/4641732969 Conference ID: 464 173 2969
10.30-11.00	Meeting with the Rector	Omirbayev Serik Maulenovich - Doctor of Economic Sciences, Professor	*Dissertation Hall Room. S1 - 2–340* Connect to a Zoom meeting https://us02web.zoom.us/j/4641732969 Conference ID: 464 173 2969
11.00-11.15	Technical break		
11.15-12.00	Meeting with Vice-Rectors	Kumalakov Bolatzhan Armenovich – PhD, Vice-Rector for Academic and Educational Work Andrey Beloshchitsky – Doctor of Technical Sciences, Professor, Vice-Rector for Science and Innovation Danil Lebedev – PhD, Vice-Rector for Digitalization Aryn Abay Mukhtarovich – Financial Director	*(Dissertation Hall, room C1 - 2-340)* Connect to a Zoom meeting https://us02web.zoom.us/j/4641732969 Conference ID: 464 173 2969
12.00-12.10	Technical break		

12.10-12.50	Meeting with the heads of structural divisions of the NGO	Gulzhan Soltan – Director of the Department of Academic Activities; Adil Faizullin - Director of the Strategy and Corporate Governance Department; Khanat Kassenov - Director of the Quality Assurance Department; Abay A. Amandykov – Director of the Human Resources Management Department; Alem Ibrayeva – Director of the Department of Financial and Economic Planning and Analysis; Leila Salykova – Director of the International Cooperation Department; Temirlan Zhanay – Director of the Marketing and Public Relations Department; Nurakhov Edil Sergazievich - Director of the Department of Information Technologies; Nurkhat Zhakiyev – Director of the Department of Science and Innovation; Kenzhebekov Arman Zhandykovich – Director of the Department of Social and Educational Work; Kanat Koshkenov – Director of the Department for Economic Work; Sapar Toksanov – Director of the Center for Competence and Excellence; Koitanova Aliya Zhenisovna - Head of the Registrar's Office; Zhunusova Gulbanu Kenesovna – Head of the Student Affairs Department Madina Mukaliyeva – Head of the Career and Employment Center Akhmetova Maral - Director of the Scientific Library	*(Dissertation Hall, room C1 - 2-340)* Connect to a Zoom meeting https://us02web.zoom.us/j/4641732969 Conference ID: 464 173 2969
12.50-13.00	Exchange of views of members of the external Expert Commission		Cabinet / room No S1.2.358 (EEC office) Connect to a Zoom meeting https://us02web.zoom.us/j/4641732969 Conference ID: 464 173 2969
13.00-14.00	***Dinner***		
14.00-14.15	EEC Work	*IAAR External Experts*	
14.15-15.00	Meeting with Deans of	Syzdykova Zuleikha Anvarovna - Dean	*(Dissertation Hall, room C1 - 2-340)*

	Accredited Programs		Connect to a Zoom meeting https://us02web.zoom.us/j/4641732969 Conference ID: 464 173 2969
15.00-15.15	EEC Work	*IAAR External Experts*	
15.15-16.00	Meeting with Directors of Departments of Educational Programs	Muslim Sergaziev – Director of the Department of Computing and Data Science; Rzayeva Leyla Hummetovna – Acting Director of the Department of Intelligent Systems and Cybersecurity. Ha Jin Hwang - Director of the School of Creative Industries; Praveen Kumar - Director of the Department of Computer Engineering	*(Dissertation Hall, room C1 - 2-340)* Connect to a Zoom meeting https://us02web.zoom.us/j/4641732969 Conference ID: 464 173 2969
16.00-16.10	Technical break		
16.10-17.00	Meeting with the teaching staff of the OP	*Cluster 1 (**Appendix No1**) (room No C1.3.234, session hall zoom 1)* *Cluster 2 (**Appendix No1**) (room No, C1.2.340 session hall zoom 2)*	*(Dissertation Hall, room C1 - 2-340)* Connect to a Zoom meeting https://us02web.zoom.us/j/4641732969 Conference ID: 464 173 2969
17.00-18.00	Survey of teaching staff (in parallel)	***Annex 2***	The link is sent to the teacher's e-mail personally
17.00-17.50	Visual inspection of the EP and the material, technical, educational and laboratory base ***only for the objects under the accredited EP***		
17.50-18.00	EEC Work: Discussion of the Results of the First Day	*IAAR External Experts*	Room NoC1.2.358 Connect to a Zoom meeting https://us02web.zoom.us/j/4641732969 Conference ID: 464 173 2969

18.00-19.00	Supper	*IAAR External Experts*	
Day 2: April 18, 2024			
10.00-10.30	EEC Work	*IAAR External Experts*	Room NoC1.2.358 Connect to a Zoom meeting https://us02web.zoom.us/j/4641732969 Conference ID: 464 173 2969
10.30-13.00	Scheduled attendance of teaching staff classes	***Annex 5*** ***** Classes for the master's degree program 7M04104 Digital Public Administration and Services, 7M06107 Media Technologies start from 18.00 to 21.50 according to the schedule. According to the academic calendar, the theoretical course on the EP of doctoral studies 8D04101 Project Management, 8D06101 Computer Science has been completed.	
10.30-13.00	Work with documents of departments *(documents must be uploaded to the cloud by clusters in advance, if necessary, heads of departments will be invited to the online Zoom room)*		
13.00-14.00	**Dinner**		
14.00-14.20	Technical break		
14.20-15.20	Meeting with students of the programme	*1 cluster (**Appendix No3**)* *(room No C1.3.234, session hall zoom 1)*	Room NoC1.2.340/C1.3.234 Connect to a Zoom meeting https://us02web.zoom.us/j/4641732969

		*Cluster 2 (**Appendix No3**)* *(room No C1-2–340, session hall zoom 2)*	Conference ID: 464 173 2969
15.20-16.20	Questioning of students (in parallel)	***Annex 4***	The link is sent to the student's e-mail personally
16.20–19.00	Operation of the EEC, profile parameters *(recording.* Discussion of the results of the second day.	*IAAR External Experts*	Room No NoC1.2.358 Connect to a Zoom meeting https://us02web.zoom.us/j/4641732969 Conference ID: 464 173 2969
19.00-20.00	Supper	*IAAR External Experts*	
Day 3: April 19, 2024			
10.00-11.30	Work of the EEC, development and discussion of recommendations	*IAAR External Experts*	Room No NoC1.2.358 Connect to a Zoom meeting https://us02web.zoom.us/j/4641732969 Conference ID: 464 173 2969
11.30-11.40	Technical break		
11.40-13.00	EEC work: development and discussion of recommendations *(recorded)*	*IAAR External Experts*	Room No NoC1.2.358 Connect to a Zoom meeting https://us02web.zoom.us/j/4641732969 Conference ID: 464 173 2969
13.00-14.00	Dinner		
14.00-16.00	EEC work: discussion, decision-making by voting (recorded)		Room No NoC1.2.358 Connect to a Zoom meeting https://us02web.zoom.us/j/4641732969 Conference ID: 464 173 2969
16.00-16.30	Final meeting of the EEC with the leadership of the university		Room No C1.2.340 Connect to a Zoom meeting https://us02web.zoom.us/j/4641732969 Conference ID: 464 173 2969
16.30-18.00	Work of the EEC,	*IAAR External Experts*	

	Discussion of the results of the quality assessment		
18.00-19.00	Supper	*IAAR External Experts*	

Reduce
IAAR – Independent Agency for Accreditation and Rating

EEC – IAAR External Expert Commission
BA – Bachelor's Degree Program
MA – Master's Degree Program
GO – Educational Organization
PLO – Basic Educational Program
Teaching staff
Doctor of Economics – Doctor of Economics
Doctor of Technical Sciences – Doctor of Technical Sciences
Ph.D. – Candidate of Physical and Mathematical Sciences
Candidate of Pedagogical Sciences – Candidate of Pedagogical Sciences
Ph.D. in Law – Ph.D. in Law
Ph.D. in Economics – PhD in Economics

Appendix 3. RESULTS OF THE SURVEY OF TEACHERS

Faculty Questionnaire
Astana IT University

Total number of questionnaires: 16

2. Position, %

Professor	5 (31,3%)
Associate Professor/Associate Professor	1 (6,3%)
Senior Lecturer	6 (37,5%)
Teacher	1 (6,3%)
Assistant Professor	1 (6,3%)
Senior Lecturer	1 (6,3%)

3. Academic degree, academic title

Phd	1 (6,3%)
Phd	2 (12,5%)
Master	8 (50%)
PhD	5 (31,3%)
Professor	1 (6,3%)

4. Work experience at this university

Less than 1 year	5 (31,3%)
1 year – 5 years	10 (62,5%)
Over 5 years	1 (6,3%)

№	Questions	Very good	Ok	Relatively bad	Not good	Very bad	Did not respond
1	To what extent does the content of the educational program meet your scientific and professional interests and needs?	11 (68,8%)	3 (18,8%)	2 (12,5%)	0 (0%)	0 (0%)	0 (0%)
2	How do you assess the opportunities provided by the University for the professional development of teaching staff?	12 (75%)	4 (25%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
3	How do you assess the opportunities provided by the University for the career	9 (56,3%)	7(43,8%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)

	growth of teaching staff?						
4	How do you assess the degree of academic freedom of the faculty?	10 (62,5%)	6 (37,5%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	To what extent teachers can use their own						
5	• Learning Strategies	11 (68,8 %)	5 (31,3%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
6	• Teaching methods	7 (43,8%)	9 (56,3%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
7	• Educational Innovation	10 (62,5%)	6 (37,5%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
8	How do you assess the work on the organization of medical care and disease prevention at the university?	1 (6,3%)	13 (81,3%)	2 (12,5%)	0 (0%)	0 (0%)	0 (0%)
9	What attention does the management of the educational institution pay to the content of the educational program?	11 (68,8%)	4 (25%)	1 (6,3%)	0 (0%)	0 (0%)	0 (0%)
10	How do you assess the sufficiency and availability of the necessary scientific and educational literature in the library?	6 (37,5%)	8 (50%)	2 (12,5%)	0 (0%)	0 (0%)	0 (0%)
11	Assess the level of conditions created that take into account the needs of different groups of students?	4 (25%)	11 (68,8%)	1 (6,3%)	0 (0%)	0 (0%)	0 (0%)
	Evaluate the openness and accessibility of the guide						
12	• Students	9 (56,3%)	7 (43,8%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
13	• **Teachers**	9 (56,3%)	7 (43,8%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
14	Assess the involvement of faculty in the process of making managerial and strategic decisions	7 (43,8%)	8 (50%)	1 (6,3%)	0 (0%)	0 (0%)	0 (0%)
15	How are the innovative activities of faculty members encouraged?	6 (37,5%)	9 (56,3%)	1 (6,3%)	0 (0%)	0 (0%)	0 (0%)
16	Assess the level of feedback from the faculty to the management	7 (43,8%)	8 (50%)	1 (6,3%)	0 (0%)	0 (0%)	0 (0%)
17	What is the level of stimulation and involvement of young professionals in the educational process?	9 (56,3%)	7 (43,8%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
18	Evaluate the professional and	6 (37,5%)	10	0 (0%)	0	0	0

	personal growth opportunities created for each faculty member and staff		(62,5%)		(0%)	(0%)	(0%)
19	Assess the adequacy of the recognition by the university management of the potential and abilities of teachers	4 (25%)	10 (62,5%)	2 (12,5%)	0 (0%)	0 (0%)	0 (0%)
	How the work is set up						
20	**• Academic Mobility**	7 (43,8%)	9 (56,3%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
21	**• For advanced training of teaching staff**	6 (37,5%)	9 (56,3%)	1 (6,3%)	0 (0%)	0 (0%)	0 (0%)
	Evaluate the support of the university and its management						
22	**• Research Initiatives of the Faculty**	8 (50%)	8 (50%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
23	**• Development of new educational programs/academic disciplines/teaching methods**	9 (56,3%)	6 (37,5%)	1 (6,3%)	0 (0%)	0 (0%)	0 (0%)
	Assess the level of faculty's ability to combine teaching						
24	**• with scientific research**	6 (37,5%)	8 (50%)	2 (12,5%)	0 (0%)	0 (0%)	0 (0%)
25	**• with practical activities**	5 (31,3%)	10 (62,5%)	1 (6,3%)	0 (0%)	0 (0%)	0 (0%)
26	Assess how the knowledge of students received at the university corresponds to the realities of the requirements of the modern labor market	7 (43,8%)	9 (56,3%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
27	How do the management and administration of the university perceive criticism addressed to them?	5 (31,3%)	10 (62,5%)	1 (6,3%)	0 (0%)	0 (0%)	0 (0%)
28	Assess how your study load meets your expectations and capabilities?	5 (31,3%)	8 (50%)	3 (18,8%)	0 (0%)	0 (0%)	0 (0%)
29	Assess the focus of educational programs/curricula on the formation of students' skills and abilities to analyze the situation and make forecasts?	4 (25%)	11 (68,8%)	1 (6,3%)	0 (0%)	0 (0%)	0 (0%)
30	Assess how the educational program meets the expectations of the labor market and employers in terms of content and quality	6 (37,5%)	10 (62,5%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)

	of implementation						

Why do you work at this university?

Career growth, high salary, relatively flexible schedule
Study in English
Good working conditions
Location, language of instruction
Opportunity to realize your potential, ideas, freedom of teaching, salary, openness of management
I should go to our university, the students here are all strong, the average score on the UNT is like 106 points and of course the salary is high, and the university also provides housing. I live in a 3-room apartment at our university
1. High salary 2. Flexible working hours 3. Students with a good level of English also enroll students with good UNT scores
High level of salary in comparison with other universities of the Republic of Kazakhstan, as well as free attendance
Good salary
There are many professionals, great for developing interdisciplinary skills
Jalaqysy jaqsy, talanytty seýdentter oqıydy, oqý ornynyń basshylyǵy men ákimshiligi salystyrmaly bureaucrat emes, oqyttýshylarǵa jaqdaı jasalǵan.
Good payment, accommodation
Team, flexibility, location
New Opportunities, Salary, English-Speaking Environment
High salary

32. How often do you have workshops and practitioners as part of your course?

very often	often	sometimes	very rare	never
1 (6,3%)	7 (43,8%)	6 (37,5%)	2 (12,5%)	1 (6,3%)

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

very often	often	sometimes	very rare	never
2 (12,5%)	10 (62,5%)	4 (25%)	0 (0%)	0 (0%)

34. How often do you encounter the following problems in your work: (please give an answer in each line)

Questions	Often	Sometimes	Never	No response
Lack of classrooms	1 (6,3%)	6 (37,5%)	9 (56,3%)	0 (0%)
Imbalance of the teaching load by semesters	2 (12,5%)	4 (25%)	10 (62,5%)	0 (0%)
Unavailability of the necessary literature in the library	0 (0%)	5 (31,3%)	11 (68,8%)	0 (0%)
Overcrowding of study groups (too many students in a class)	0 (0%)	3 (18,8%)	13 (81,3%)	0 (0%)

Inconvenient schedule	1 (6,3%)	11 (68,8%)	4 (25%)	0 (0%)
Inappropriate classroom conditions	0 (0%)	9 (56,3%)	7 (43,8%)	0 (0%)
No Internet access/weak internet	0 (0%)	8 (50%)	8 (50%)	0 (0%)
Students' lack of interest in learning	0 (0%)	10 (62,5%)	6 (37,5%)	0 (0%)
Late receipt of information about events	0 (0%)	4 (25%)	12 (75%)	0 (0%)
Lack of technical means of training in classrooms	0 (0%)	3 (18,8%)	13 (81,3%)	0 (0%)
Other issues	There is a lack of materials for laboratory classes Sometimes it is not possible to find the key to the lecture room in time, due to the late delivery of the keys by the previous teacher Sometimes there are problems with air conditioners Lack of personal offices for teaching staff, canteen opening hours			

35. There are many different aspects and aspects in the life of a university, which in one way or another affect each teacher and staff. Rate how satisfied you are:

Questions	**Highly satisfied (1)**	**Partially satisfied (2)**	**Dissatisfied (3)**	**Difficult to answer (4)**
The attitude of the university administration to you	11 (68,8%)	4 (25%)	1 (6,3%)	0 (0%)
Relations with direct management	11 (68,8%)	5 (31,3%)	0 (0%)	0 (0%)
Relations with colleagues at the department	14 (87,5%)	2 (12,5%)	0 (0%)	0 (0%)
The degree of participation in managerial decision-making	11 (68,8%)	4 (25%)	1 (6,3%)	0 (0%)
Relations with students	12 (75%)	3 (18,8%)	1 (6,3%)	0 (0%)
Recognition of your successes and achievements by the administration	11 (68,8%)	2 (12,5%)	2 (12,5%)	1 (6,3%)
Support for your suggestions and comments	8 (50%)	6 (37,5%)	2 (12,5%)	0 (0%)
Activities of the university administration	10 (62,5%)	5 (31,3%)	1 (6,3%)	0 (0%)
Terms of remuneration	12 (75%)	4 (25%)	0 (0%)	0 (0%)
Working conditions, list and quality of services provided at the university	11 (68,8%)	5 (31,3%)	0 (0%)	0 (0%)
Occupational health and safety	14 (87,5%)	1 (6,3%)	0 (0%)	1 (6,3%)
Management of changes in the activities of the university	11 (68,8%)	3 (18,8%)	0 (0%)	2 (12,5%)
Provision of a social package: recreation, sanatorium treatment, etc.	4 (25%)	10 (62,5%)	0 (0%)	2 (12,5%)
Organization and quality of food at the university	3 (18,8%)	8 (50%)	4 (25%)	1 (6,3%)
Organization and quality of	6 (37,5%)	4 (25%)	2 (12,5%)	4 (25%)

medical care				

Annex 4. RESULTS OF THE STUDENT SURVEY

Student questionnaire
Astana IT University

Total number of questionnaires: 25

Educational program (specialty):

Mathematical and Computational Sciences	18 (72%)
Industrial Internet of Things	1 (4%)
Electronic Engineering	6 (24%)
7M04104 Digital Public Administration and Services	0 (0%)
7M06107 Media Technologies	0 (0%)
8D04101 Project Management	0 (0%)
8D06101 Computer Science	0 (0%)

Floor:

Male	12 (48%)
Female	13 (52%)

Rate how satisfied you are:

Questions	Completely satisfied	Partially satisfied	Partially dissatisfied	Not satisfied	Difficult answer
1. Relations with the dean's office (school, faculty, department)	10 (40%)	12 (48%)	2 (8%)	1 (4%)	0 (0%)
2. The level of accessibility of the dean's office (school, faculty, department)	13 (52%)	9 (36%)	2 (8%)	1 (4%)	0 (0%)
3. The level of accessibility and responsiveness of the management (university, school, faculty, department)	12 (48%)	11 (44%)	1 (4%)	1 (4%)	0 (0%)
4. Availability of academic counseling	12 (48%)	12 (48%)	0 (0%)	0 (0%)	1 (4%)
5. Support with educational materials in the learning process	13 (52%)	7 (28%)	3 (12%)	1 (4%)	1 (4%)
6. Availability of counseling on personal problems	10 (40%)	10 (40%)	3 (12%)	2 (8%)	0 (0%)
7. Student-teacher relationship	11 (44%)	10 (40%)	3 (12%)	1 (4%)	0 (0%)

8. The activities of the financial and administrative services of the educational institution	10 (40%)	7 (28%)	3 (12%)	2 (8%)	3 (12%)
9. Access to health services	10 (40%)	6 (24%)	7 (28%)	1 (4%)	1 (4%)
10. Quality of medical care at the university	8 (32%)	8 (32%)	4 (16%)	2 (8%)	3 (12%)
11. The level of accessibility of library resources	14 (56%)	7 (28%)	2 (8%)	0 (0%)	2 (8%)
12. Quality of services provided in libraries and reading rooms	16 (64%)	6 (24%)	1 (4%)	0 (0%)	2 (8%)
13. Existing educational resources of the university	12 (48%)	10 (40%)	1 (4%)	2 (8%)	0 (0%)
14. Accessibility of computer labs	10 (40%)	8 (32%)	3 (12%)	2 (8%)	2 (8%)
15. Accessibility and quality of Internet resources	10 (40%)	10 (40%)	2 (8%)	2 (8%)	1 (4%)
16. The content and information content of the website of educational organizations in general and faculties (schools) in particular	11 (44%)	11 (44%)	2 (8%)	0 (0%)	1 (4%)
17. Classrooms, classrooms for large groups	11 (44%)	9 (36%)	1 (4%)	2 (8%)	2 (8%)
18. Student lounges (if any)	9 (36%)	5 (20%)	4 (16%)	3 (12%)	4 (16%)
19. Clarity of procedures for taking disciplinary measures	12 (48%)	8 (32%)	3 (12%)	1 (4%)	1 (4%)
20. The quality of the educational program as a whole	9 (36%)	12 (48%)	1 (4%)	3 (12%)	0 (0%)
21. Quality of Curricula in EPs	11 (44%)	10 (40%)	2 (8%)	2 (8%)	0 (0%)
22. Teaching methods in general	10 (40%)	10 (40%)	3 (12%)	2 (8%)	0 (0%)
23. Quick response to feedback from teachers on the educational process	11 (44%)	7 (28%)	5 (20%)	1 (4%)	1 (4%)
24. Overall quality of teaching	11 (44%)	10 (40%)	1 (4%)	3 (12%)	0 (0%)
25. Academic Load/Student Requirements	9 (36%)	12 (48%)	4 (16%)	0 (0%)	0 (0%)
26. Faculty requirements for students	10 (40%)	9 (36%)	2 (8%)	1 (4%)	3 (12%)
27. Information support and explanation of the admission rules and strategy of the educational program (specialty) before entering the university	11 (44%)	8 (32%)	6 (24%)	0 (0%)	0 (0%)
28. Informing the requirements in order to successfully complete this educational program (specialty)	11 (44%)	10 (40%)	2 (8%)	0 (0%)	2 (8%)
29. Quality of examination materials (tests and examination questions, etc.)	13 (52%)	9 (36%)	3 (12%)	0 (0%)	0 (0%)
30. Objectivity of assessment of knowledge, skills and other educational achievements	11 (44%)	8 (32%)	3 (12%)	2 (8%)	1 (4%)
31. Existing computer labs	11	7	3	2 (8%)	2 (8%)

	(44%)	(28%)	(12%)		
32. Existing scientific laboratories	13 (52%)	5 (20%)	3 (12%)	1 (4%)	3 (12%)
33. Objectivity and fairness of teachers	14 (56%)	6 (24%)	3 (12%)	2 (8%)	0 (0%)
34. Informing students about courses, educational programs and academic degrees	12 (48%)	7 (28%)	4 (16%)	0 (0%)	2 (8%)
35. Providing students with a dormitory	10 (40%)	6 (24%)	3 (12%)	3 (12%)	3 (12%)

Assess how much you agree:

Assertion	Complete consent	I agree	Partially agree	I disagree	Full disagreement	Did not respond
36. The course program was clearly presented	9 (36%)	8 (32%)	6 (24%)	2 (8%)	0 (0%)	0 (0%)
37. The course content is well structured	12 (48%)	6 (24%)	4 (16%)	2 (8%)	1 (4%)	0 (0%)
38. The key terms are sufficiently explained	12 (48%)	6 (24%)	6 (24%)	0 (0%)	1 (4%)	0 (0%)
39. The material proposed by the teacher is relevant and reflects the latest achievements of science and practice	9 (36%)	9 (36%)	6 (24%)	0 (0%)	1 (4%)	0 (0%)
40. The teacher uses effective teaching methods	8 (32%)	7 (28%)	6 (24%)	3 (12%)	1 (4%)	0 (0%)
41. The teacher knows the material taught	12 (48%)	6 (24%)	4 (16%)	3 (12%)	0 (0%)	0 (0%)
42. The teacher's presentation is clear	9 (36%)	9 (36%)	5 (20%)	2 (8%)	0 (0%)	0 (0%)
43. The teacher presents the material in an interesting way	8 (32%)	6 (24%)	5 (20%)	6 (24%)	0 (0%)	0 (0%)
44. Objectivity of assessment of knowledge, skills and other educational achievements	11 (44%)	9 (36%)	2 (8%)	3 (12%)	0 (0%)	0 (0%)
45. Timeliness of assessment of students' educational achievements	10 (40%)	9 (36%)	4 (16%)	2 (8%)	0 (0%)	0 (0%)
46. The teacher meets your requirements and expectations for professional and personal development	9 (36%)	7 (28%)	6 (24%)	3 (12%)	0 (0%)	0 (0%)
47. The teacher stimulates the activity of students	10 (40%)	8 (32%)	3 (12%)	4 (16%)	0 (0%)	0 (0%)
48. The teacher stimulates students' creative thinking	8 (32%)	8 (32%)	4 (16%)	4 (16%)	1 (4%)	0 (0%)
49. The appearance and manners of the teacher are adequate	13 (52%)	7 (28%)	4 (16%)	1 (4%)	0 (0%)	0 (0%)
50. The teacher shows a positive attitude towards students	9 (36%)	9 (36%)	6 (24%)	1 (4%)	0 (0%)	0 (0%)
51. The system of assessment of	10	8	5	2 (8%)	0 (0%)	0 (0%)

educational achievements (seminars, tests, questionnaires, etc.) reflects the content of the course	(40%)	(32%)	(20%)			
52. The evaluation criteria used by the teacher are clear and accessible	12 (48%)	9 (36%)	2 (8%)	2 (8%)	0 (0%)	0 (0%)
53. The teacher objectively evaluates the students' achievements	10 (40%)	9 (36%)	3 (12%)	3 (12%)	0 (0%)	0 (0%)
54. The teacher speaks the professional language	9 (36%)	8 (32%)	6 (24%)	2 (8%)	0 (0%)	0 (0%)
55. The organization of education provides sufficient opportunities for sports and other leisure activities	10 (40%)	8 (32%)	6 (24%)	0 (0%)	1 (4%)	0 (0%)
56. Facilities and equipment for students are safe, comfortable and modern	10 (40%)	8 (32%)	6 (24%)	1 (4%)	0 (0%)	0 (0%)
57. The library is well equipped and has a sufficient fund of scientific, educational and methodological literature	13 (52%)	6 (24%)	5 (20%)	0 (0%)	1 (4%)	0 (0%)
58. Equal opportunities for the development of EP and personal development are provided to all students	13 (52%)	4 (16%)	7 (28%)	1 (4%)	0 (0%)	0 (0%)

Other problems regarding the quality of teaching:

Problem with the selection of teachers

I would like undergraduates not to be allowed to study students. They undergo practical training and it is inconvenient that they change 2 times per trimester

increase the teaching staff in basic subjects

Muǵalimderdiń jetispeýshiligi boldy,2 trimesterde calculus 2 disciplinasynan lektor bolmady, sol jaǵynan qıynshylyq týdy.

nothing and everything

Why in an IT university, where the main emphasis is on the technical base, teachers in the humanities believe that their subject is the most important and mandatory.