



«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 educational program evaluation

8D01501 Methodology of scientific research in mathematics education

NAO "Kokshetau University named after Sh. Ualikhanov»

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

Date of visit: from May 27 to May 29, 2024

INDEPENDENT ACCREDITATION AND RATING AGENCY
External expert commission

*Addressed
Accreditation
to the IAAR Council*



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(I) LIST OF SYMBOLS AND ABBREVIATIONS

AMP – administrative and management personnel
BD – basic disciplines
UC – university component
EW – educational work
SCC – state certification commission
SCES – state compulsory education standard
DET – distance educational technologies
UNT – unified national testing
ECTS – European credit transfer and accumulation system
ICT – information and communication technologies
IC – individual curriculum
ICE – Institute of Continuing Education
OC – optional component
KU – Kokshetau University. Sh. Ualikhanova
CTT – credit technology of training
KED – catalog of elective disciplines
MSHE RK – Ministry of Science and Higher Education of the Republic of Kazakhstan
MEP – modular educational programs
MTB - material and technical base
NAS RK – National Academy of Sciences of the Republic of Kazakhstan
RW - research work
RWS/RWM – research work of students/master’s students
NQF – National Qualifications Framework
STC – scientific and technical council
RC – required component
GED – general education disciplines
EP - educational program
MD – major disciplines
TS – teaching staff
EPD – editorial and publishing department
RK - Republic of Kazakhstan
WC – working curriculum
DLS – distance learning system
QMS - Quality Management System
IWMS – independent work of master’s students
IWS – independent work of students
IWST – independent work of students under the guidance of a teacher
SC – standard curriculum
ESS – educational support staff
TMC - training and methodology complex
EMCD – educational and methodological complex of the discipline
EMA – educational and methodological advice
Ph.D – doctor/doctorate in philosophy

(II) INTRODUCTION

In accordance with Order No. 93-24-OD dated 03/01/2024 of the General Director of the Independent Accreditation and Rating Agency, from May 27 to May 29, 2024, an external expert commission assessed the compliance of the educational program 8D01501 - Methodology of scientific research in mathematical education of NJSC "Kokshetau University" named after Sh. Ualikhanov" to the standards of primary specialized accreditation (EX-ANTE) of higher and (or) postgraduate education of the IAAR (No. 57-20-OD dated June 16, 2020, sixth edition) in a hybrid format.

The report of the external expert commission (EEC) contains an assessment of the presented educational program against the criteria of IAAR standards, recommendations of the EEC for further improvement of the educational program and profile parameters of the educational program.

Composition of EEC:

Chairman of the EEC – Akibaeva Gulvira Sovetbekovna, Candidate of Economic Sciences, Karaganda University named after Academician E.A. Buketova (Karaganda); *Off-line participation* *Foreign expert IAAR* – Kulagina Natalia Alexandrovna, Doctor of Economic Sciences, Professor, MIREA – Russian Technological University (Moscow, Russian Federation); *On-line participation;*

Foreign expert IAAR - Astanov Shavkatbek Mominzhanovich, responsible for clinical training of students, senior lecturer of the Department of Hospital Therapy, Faculty of Medicine, Jalalabad State University named after Bekmamat Osmonov (Jalalabad, Kyrgyzstan); *On-line participation*

IAAR Expert – Kulakhmetova Mergul Sabitovna, philological sciences, associate professor of the department of foreign languages of Pavlodar Pedagogical University named after Alkey Margulana (Pavlodar); *Off-line participation;*

IAAR Expert – Nosieva Nazym Kazhimuratovna, Candidate of Philological Sciences, acting Associate Professor, Academy of Physical Culture and Mass Sports of Astana (Astana); *On-line participation*

IAAR Expert – Zakirova Dilnara Ikramkhanova, PhD, research professor, Turan University (Almaty); *Off-line participation*

IAAR Expert – Oshakbaeva Zhuldyz Oryntaykyzy, Candidate of Biological Sciences, Associate Professor, Kostanay Engineering and Economic University named after M. Dulatov (Kostanay); *Off-line participation*

IAAR Expert – Musabalina Gulnar Toleugazievna, Doctor of Historical Sciences, Professor, Eurasian National University. L.N. Gumilev (Astana); *Online participation*

IAAR Expert – Karstina Svetlana Gennadiyevna, Doctor of Physical and Mathematical Sciences, Professor of the Department of Physics and Nanotechnologies of NJSC Karaganda University named after Academician E.A. Buketova" (Karaganda); *Off-line participation*

IAAR Expert – Ruslan Zairovich Safarov, Candidate of Chemical Sciences, Eurasian National University. L.N. Gumilev (Astana); *Off-line participation* *IAAR Expert* – Baimagambetova Aigerim Askharovna, PhD, Dean of the School of Public Health and Management of the NAO Astana Medical University (Astana); *Off-line participation*

IAAR expert, employer – Sutula Maxim Yuryevich, PhD, leading researcher, National Center of Biotechnology (Astana) *On-line participation*

IAAR expert, employer – Abdikadirova Akniet Maratovna, head of the human capital development department of the Atameken Chamber of Entrepreneurs, Shymkent (Shymkent); *On-line participation*

IAAR expert, student – Zholdasova Nazira Zhenisovna, 4th year student of the EP “Kazakh Language and Literature”, NJSC “Aktobe Regional University named after K. Zhubanov” (Aktobe); *On-line participation*

IAAR expert, student – Omarova Adel Zhanatovna, 3rd year student of the OP Finance, NJSC "Kazakh Agrotechnical Research University named after S. Seifullin" (Astana); *On-line participation*

IAAR expert, student – Kandratyeva Ekaterina Sergeevna, 2nd year student of OP 7M05101 Biology of the NJSC North Kazakhstan University named after. M. Kozybaeva" (Petropavlovsk); *On-line participation*

IAAR expert, student – Yerkhankyny Dinara, 2nd-year student of OP "History", Kyzylorda University named after Korkyt Ata (Kyzylorda); *On-line participation IAAR Expert, student* – Umirzakova Gulshat Armankyzy, 2nd year master's student OP 7M01501 – Mathematics NJSC "Aktobe Regional University named after K. Zhubanov" (Aktobe); *On-line participation*

IAAR expert, student – Kayyrbekov Nariman Ruslanuly, 1st year master's student of the Department of Chemistry, East Kazakhstan University named after Sarsen Amanzholov (Ust-Kamenogorsk); *On-line participation*

IAAR expert, student – Makulbek Aygerim Serikpaykyzy 1st year master's student in the specialty of public health of the NJSC "Medical University of Karaganda" (Karaganda); *On-line participation*

VĖK IAAR coordinator – Bekenova Dinara Kairbekovna, project manager IAAR (Astana); *Off-line participation.*



(III) REPRESENTATION OF THE EDUCATIONAL ORGANIZATION

History of Kokshetau University named after. Sh. Ualikhanov begins with the opening of the Kokchetav Pedagogical Institute in 1962. In 1993, the Kokshetau branch of the Karaganda Polytechnic Institute was organized. By order of the Ministry of Education of the Republic of Kazakhstan dated May 23, 1996 No. 143, on the basis of the Kokshetau Pedagogical Institute named after Ch. Ch. Valikhanov, the Kokshetau University named after Sh. Ualikhanov was created, which included the Agricultural Institute named after. S. Sadvakasova and a branch of the Karaganda Polytechnic Institute.

Currently, KU named after. Sh. Ualikhanov is one of the leading regional universities in Northern Kazakhstan in training highly qualified specialists for various industries in the region within the framework of undergraduate, graduate and doctoral programs capable of solving global problems using advanced technologies for the development of the region and the country. The goal of the university is to create an innovative environment at the university that contributes to the dynamic development of the economy of the Akmola region.

KU named after Sh. Ualikhanov is a multidisciplinary educational institution. The university has a developed material and technical base and highly qualified teaching staff. The educational activities of the university are carried out in accordance with state license No. KZ94LAA00018491, issued on July 28, 2020.

According to the official website of KU. Sh. Ualikhanov, the structure of the university includes a pedagogical institute, an agrotechnical institute named after S. Sadvakasov, a higher school of business and law, a higher school of medicine, as well as a scientific library, an editorial and publishing department, and a NMR engineering laboratory spectroscopy, the Institute of Continuing Education and other departments of scientific, educational and production areas. The institutes/higher schools have 19 departments that train personnel in 60 higher educational programs and 51 postgraduate educational programs.

The educational process at the university is carried out by 551 teachers, of which 410 are full-time, incl. Doctors of Science – 19, Candidates of Science – 80, Doctors of Philosophy (PhD) – 34 people, 221 Masters.

Currently, the student population of the university is 7,744 people, of which: bachelor's degree – 7,344, master's degree – 376, PhD doctorate – 24. The mission of the university: by inspiring ideas, we create the future! We cultivate talents capable of solving global problems using advanced technologies for the development of the region and the country.

In the international rankings of KU named after. Sh. Ualikhanov occupies:

– 39th place - in the Asian University Rankings - Central Asia 2024

(<https://www.topuniversities.com/asia-university-rankings/central-asia?page=2>); – 651-700 place - in QS World University Rankings: Asia 2024

(<https://www.topuniversities.com/countries=kz?page=2&countries=kz>);

862nd place - in UI GreenMetric World University Rankings 2023
(<https://greenmetric.ui.ac.id/rankings/overall-rankings-2023>).

In the ranking of educational programs of universities of the National Chamber of Entrepreneurs "Atameken" at the end of 2023, 7 programs took leading positions, 17 educational programs entered the TOP 10. In the ranking of universities by groups of educational programs in accordance with the levels and areas of specialist training (Doctoral studies) according to the IAAR assessment in 2020, 2021 Sh. Ualikhanov State University for group of educational doctoral programs D010-Training of mathematics teachers took 1st place (<https://iaar.agency/rating/1/0/2020>, <https://iaar.agency/rating/1/0/2021>). The university's quality management system is certified for compliance with the international standard ISO 9001:2015.

The university publishes the scientific journal "Bulletin of the State University named after Sh. Ualikhanov." The university is provided with all the necessary educational, material, technical, and information resources for training personnel in the educational programs being implemented. The university has 5 academic buildings, 5 student dormitories, 2 sports and health complexes, a student nutrition center, an educational, research and production complex "Elite",

and a bath and laundry complex.

In the 2023-2024 academic year, the total collection of the scientific library is 739,783 items. Of these: educational literature – 517,862 copies; scientific literature – 102,119 copies; UML and other literature – 119,802 copies.

The management system of Kokshetau University named after Sh. Ualikhanov is built on a vertical principle and involves structural divisions in areas of activity: educational and methodological work, research work, educational work, etc. The university carries out planning at different levels. Mechanisms have been developed and monitoring of the university's activities in various areas is carried out. Internal regulatory and organizational documentation allows for operational management and distribution of powers.

TO a brief description of the accredited EP 8D01501 – “Methodology of scientific Research in Mathematics Education”.

Educational program 8D01501 - “Methodology in scientific research in mathematics education” belongs to the field of education 8D01 - Pedagogical sciences, code and classification of areas of training 8D015 - Training of teachers in natural science subjects, group of educational programs - D010 - Training of mathematics teachers.

Training of personnel in an accredited EP (license for engaging in educational activities No. KZ94LAA00018491 dated July 28, 2020, annex to the license for engaging in educational activities in the field of training 8D015 - Training of teachers in natural science subjects dated July 27, 2020, Astana, order No. 318) at KU named after. Sh.Ualikhanov is taught at the Department of Mathematics, Physics and Computer Science, which is a structural unit of the Pedagogical Institute.

Personnel training for an accredited EP is carried out at level 8NRK - doctoral studies.

The educational program for doctoral studies (PhD) 8D01501 – “Methodology of scientific research in mathematics education” is aimed at training scientific and scientific-pedagogical personnel with critical, innovative and creative thinking, ready to carry out teaching, research, management, educational activities, as well as capable of contributing their own original research to the system of mathematics education.

The department provides training to doctoral students in accordance with the requirements of the State Compulsory Education Standard of the Republic of Kazakhstan.

Doctoral students are trained in Kazakh and Russian languages. The standard training period is 3 years. The training of doctoral students in the accredited educational program 8D01501 - “Methodology in scientific research in mathematics education” is carried out by 2 doctors of science, 3 candidates of science, 1 PhD. The degree of teaching staff in the context of an accredited EP is 100%, the average age of teaching staff is 58 years. According to the accredited EP 8D01501 - “Methodology in scientific research in mathematics education” there are lecture halls, an office science, 4 multimedia classrooms, 4 computer classes. After defending the dissertation, the student is awarded the degree Doctor of Philosophy PhD by decision of the dissertation council in the educational program 8D01501 “Methodology of scientific research in mathematics education.”

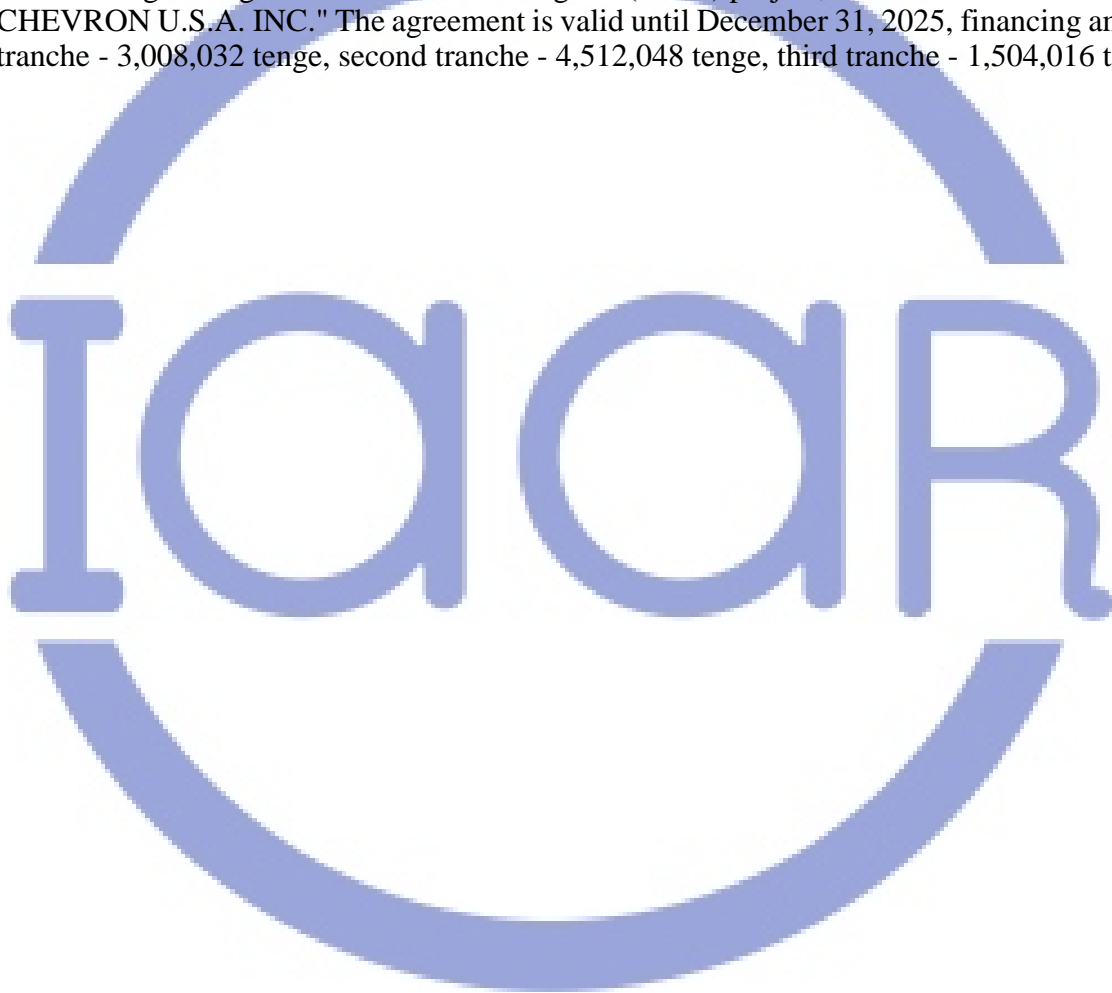
Information about the number of students enrolled in the accredited educational program is presented in Table 1.

Table 1 - Enrollment of students in the accredited educational program

Academic year	1st year contingent	2nd year contingent	3rd year contingent
2019-2020	4	-	-
2020-2021	3	4	-
2021-2022	1	3	4

Since the 2022-2023 academic year, there have been no first-year students enrolled in an accredited educational program.

Teachers and students of the departments of mathematics, physics and computer science in the 2020-2021 academic year took part in the joint international project “US Kazakhstan Collaboration to Integrate STEM into Discrete Mathematics course for aspiring mathematics teachers” in partnership with Teachers College Columbia University (New York , USA) and Suleyman Demirel University (Almaty, Kazakhstan), in 2021-2023. participate in the scientific project IRN AP 09258554 “Creation of a network of Children’s Universities KAZCUNET” (project manager - Damekova S.K., grant funding for scientists on scientific and (or) scientific and technical projects, Science Committee of the Ministry of Education and Science of the Republic of Kazakhstan, funding amount 57400401.20 tenge) . As part of the UniCEN program, an international educational project is being implemented jointly with the University of Nebraska “UNO-KSU Partnership Building through Enhancement of English and STEM teaching (Collaboration between Sh. Ualikhanov KU and the University of Nebraska by improving the teaching of English and developing STEM education)”, amount grant \$39,600. On January 19, 2024, an agreement was signed with the Caravan of Knowledge Foundation for the implementation of the Strengthening Teacher Education Program (STEP) project, financed from funds allocated by CHEVRON U.S.A. INC." The agreement is valid until December 31, 2025, financing amount: first tranche - 3,008,032 tenge, second tranche - 4,512,048 tenge, third tranche - 1,504,016 tenge.



(IV) DESCRIPTION OF PREVIOUS ACCREDITATION PROCEDURE

Educational program 8D01501 - “Methodology of scientific research in mathematical education” NJSC “Kokshetau University named after Sh. Ualikhanov” is 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 VISIT OF EEC

The work of the EEC was carried out on the basis of the approved Program of the visit of the external expert commission of the IAAR to Kokshetau University named after Sh. Ualikhanov in the period from May 27 to May 29, 2024. In order to coordinate the work of the EEC, a preliminary meeting was held online on May 24, 2024, during which key issues and the visit program were discussed, and agreement was reached on the choice of examination methods.

To obtain objective information about the quality of educational programs and the entire infrastructure of the university, to clarify the content of self-assessment reports, meetings were held with the acting Chairman of the Board-Rector, Members of the Board - vice-rectors of the university in areas of activity, heads of structural divisions, with directors of institutes/higher schools of accredited educational programs, heads of departments and heads of EP, teachers studying EP, representatives of practice bases and employers, graduates OP. Meetings with representatives of practice bases, employers and graduates of the EP were held in a hybrid format. A total of 252 representatives took part in the meetings (Table 2).

Table 2 – Information about employees and students who took part in meetings with the IAAR EEC:

Category of participants	Quantity
Acting Chairman of the Board-Rector	1
Members of the Board - Vice-Rectors	4
Heads of structural divisions	13
Directors of institutes/higher schools of accredited educational programs	4
Heads of departments and heads of educational programs	10
Teachers	67
EP students	81
Representatives of practice bases and employers	35
EP graduates	37
Total	252

During the visual inspection, members of the EEC got acquainted with the state of the material, technical, educational and laboratory facilities of the university. Classrooms were visited to conduct lectures, practical and laboratory work on the profile of the accredited educational program, the place of operation of support services. List of visual inspection objects: engineering laboratory of NMR spectroscopy, MOOC center, video-audio recording studio, PASO office, electronic library, classrooms No. 313, 317, 402, multimedia classrooms (auditoriums No. 412, 512, 514), computer class (auditorium No. 502), educational and research laboratories (No. 719, 812).

EEC experts reviewed practice databases, including Eurasia Group Kazakhstan LLP, Lingvostar Translation Agency, CanAgro LLP, Nazarbayev Intellectual School of Physics and

Mathematics. In order to confirm the information presented in the Self-Assessment Report, external experts requested and analyzed the working documentation of the university, and analyzed the information on the official website of the university (<https://shokan.edu.kz/ru/>).

At the time of accreditation, attendance at classes in the accredited educational program was not carried out due to the completion of academic studies of doctoral students.

In accordance with the accreditation procedure, an online survey of 60 teachers and 52 students was conducted.

In accordance with the program of the EEC visit, recommendations for improving the accredited educational programs of the NJSC "Kokshetau University named after Sh. Ualikhanov", developed by the EEC based on the results of the examination, were presented at the final meeting with the management of the university on May 29, 2024.



(VI) COMPLIANCE WITH SPECIALIZED STANDARDS ACCREDITATIONS

6.1. Standard "Educational Program Management"

- *The institution of higher and/or postgraduate education must have a published quality assurance policy. Quality assurance policies should reflect the relationship 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.*
- *A commitment to quality assurance must apply to all activities carried out by contractors and partners (outsourcing), including joint/double degree education and academic mobility.*
- *The management of the EP demonstrates its readiness to ensure transparency in the development of the development plan of the EP based on an 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 interested parties. The plan must contain the start date for the implementation of the educational program.*
- *The leadership 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, compliance with the needs of students, employers and society, and making decisions aimed at continuous improvement of the EP.*
- *The management of the EP should involve representatives of stakeholder groups, including employers, students and teaching staff in the formation of a development plan for the EP.*
- *The leadership 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 must demonstrate a clear definition of those responsible for business processes within the EP, an unambiguous distribution of job responsibilities of staff, and delimitation of the functions of collegial bodies.*
- *The management of the educational program must provide evidence of the transparency of the educational program management system.*
- *The management of the EP must demonstrate the existence of an internal quality assurance system for the EP, including its design, management and monitoring, their improvement, and decision-making based on facts.*
- *Management of the educational institution must manage risks, including within the framework of the educational institution undergoing initial accreditation, and also demonstrate a system of measures aimed at reducing the degree of risk.*
- *The management of the EP must ensure the participation of representatives of employers, teaching staff, students and other interested parties in the collegial bodies governing the educational program, as well as their representativeness when making decisions on issues of managing the educational program.*
- *The PO must demonstrate innovation management within the EP, including the analysis and implementation of innovative proposals.*
- *The management of the EP must demonstrate evidence of readiness for openness and accessibility for students, teaching staff, employers and other interested parties.*
- *EP management must undergo training in educational management programs.*

Evidence

Politics of KU named after. Sh. Ualikhanov in the field of quality is an integral element of university management and the basis for planning its educational activities. The policy of NJSC "Kokshetau University named after Sh. Ualikhanov" in the field of quality is published on the university website (https://shokan.edu.kz/documents/1412/%D0%9F%D0%BE%D0%BB%D0%B8%D1%82%D0%B8%D0%BA%D0%B0_%D0%9A%D0%A3_2023_%D0%B3%D0%BE%D0%B4.pdf), located in all structural divisions of the university, which is a guarantee of accessibility, openness, and transparency not only to employees and students, but also to other interested parties.

The policy is based on the values and traditions of the university, the potential of the teaching staff, scientific schools, whose activities ensure the generation of knowledge, teaching and transformation of knowledge into practice.

Quality Policy of KU named after. Sh.Ualikhanov reflects the connection between scientific research, teaching and learning and provides for the development of educational programs, expansion of the research and entrepreneurial component, emphasis on practice-oriented training, increasing the professional level of teaching staff, developing the scientific potential of the university, commercializing the results of research activities and implementation in education, internationalization of university activities, implementation of systemic and person-oriented approaches in educational and social work with students, ensuring growth in the efficiency of university management, strengthening the corporate spirit, shaping the image of the university in the educational services market, developing infrastructure in accordance with modern requirements, creating a digital ecosystem of the university, diversifying the sources of funding for

the university.

Issues of implementing the quality assurance policy are reflected in the Academic Policy (QMS P 4.45-2022), the Development Program of Kokshetau University named after Sh. Ualikhanov for 2023-2029 and in other strategic and regulatory documents of the university. Distribution of powers to manage the Quality Policy are defined in the University Standard Development of Quality Policy and Objectives (QMS STU 2.02-2020).

In its activities, the University proceeds from an understanding of the quality of education as a comprehensive characteristic of educational activities and training of students, expressing the degree of compliance with the State Educational Standards of the Republic of Kazakhstan, the regulatory documents of the Ministry of Education and Science of the Republic of Kazakhstan, the requirements and (or) needs of an individual or legal entity in whose interests educational activities are carried out, including , the degree of achievement of the planned results of the educational program. In an effort to ensure quality, the university creates an educational environment in which the content of programs, training opportunities and material and technical base correspond to the goals of the university.

The university management is responsible for quality in all areas of activity of the Sh. Ualikhanov University, including the quality of personnel training, scientific research, financial, economic and other types of activities. Everyone's personal responsibility for the quality of work is ensured by clearly regulating the responsibilities and powers of management, teachers, employees and other categories of workers.

The main directions of the quality policy include the modernization of educational programs, the research process and innovation activities, infrastructure, strengthening human resources, the contingent of students and graduates of Sh. Ualikhanov KU, improving the organizational structure and increasing management efficiency.

The quality policy is formed and periodically reviewed on the basis of the Development Program of Kokshetau University named after Sh. Ualikhanov for 2023-2029, the current results of the analysis of satisfaction of consumers of educational services and other interested parties, information on the results of the functioning of the university's QMS for previous periods.

Draft Policies and quality goals are developed by members of the university board with the involvement of competent specialists from various structural divisions, discussed in all divisions, comments and suggestions on the project are analyzed, and the updated draft Policy is transferred to the rector of the university. Quality policies and goals are developed in Kazakh and Russian languages and documented in separate documents.

The internal quality assurance system includes the totality of the organizational structure of the Sh. Ualikhanov State University, internal documentation, indicators, processes and resources necessary for continuous quality improvement education and development of a quality culture. Academic quality councils at institutes/higher schools continuously monitor the quality of teaching. The university has created Quality Councils, the purpose of which is to increase the effectiveness and efficiency of the educational process implemented in institutes/schools. In accordance with the Regulations on the internal quality assurance system (QMS P 1.01-2020), the university defines the following basic principles of quality assurance: 1) quality assurance meets the diversity of higher education systems, educational institutions, educational programs and students, 2) compliance of activities with regulatory and legislative requirements , ESG recommendations and the requirements of the ISO 9001 standard, 3) the leadership role of management is to ensure the unity of strategy, policies and procedures, involve all employees in quality assurance and improvement activities, ensure necessary resources, 4) taking into account the needs and expectations of external and internal stakeholders, their active involvement in activities to ensure the quality of education, 5) maintaining academic integrity and freedom, intolerance to any forms of corruption and discrimination, 6) clearly defining responsibility for processes, quality and standards, 7) application of the process approach and principles of risk-oriented thinking, 8) creation of conditions for continuous improvement of the quality assurance system and development of a quality culture, 9) ensuring transparency and accessibility of information for stakeholders, 10) making important management decisions based

on a comprehensive analysis of data and information.

According to the Quality Manual (QMS RK 01-2020), the university has organized monitoring of external and internal factors. As part of strategic planning, the development (implementation period - 5 years) of university development programs is carried out, the initial stage of which is the diagnosis and analysis of the university environment using strategic management tools (SWOT, etc.). A constant analysis of the environment is also carried out within the framework of the current activities of managers at all levels. Based on the results of this type of analysis, activities are developed as part of the annual planning of the activities of structural units.

The internal environment of the university is studied through analysis of performance results, surveys of staff and students to determine their satisfaction with work/training at the university, and an annual QMS analysis tool from management. All departments of the university annually generate reports on the results of their activities. The rector presents the final report on the university's activities for the current year to the Academic Council at the beginning of the next year. The results of the analysis of external and internal environmental factors are taken into account when setting goals and planning activities for the short, medium and long term (for example, when developing the Strategic Development Plan for a Pedagogical Institute for 2021-2025, when developing the Development Plan for the educational program 8D01501 - Methodology of scientific research in mathematics education for 2023-2026, etc.).

The management of the EP develops a development plan for the EP based on an 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 interested parties. The EP development plan includes a passport of the educational program development plan, an analytical substantiation of the program, characteristics of the problems that the development plan is aimed at solving, the main goals and objectives of the EP development plan, the expected end results of the implementation of the EP development plan, measures to reduce the impact of risks for the EP, a list of activities EP development plan, mechanism for implementing the EP development plan, assessment of the socio-economic efficiency of the implementation of the EP development plan, EP graduate model. Participated in the development of the Development Plan of the educational program 8D01501 - Methodology of scientific research in mathematics education for 2023-2026 representatives of the department (Damekova S.K., Turtkaraeva G.B., Kuttykozhaeva Sh.N., Gabdulin R.S.), employers (Karmenov K.K., deputy head for academic work, Kabdusheva S.B., head of the State Public Enterprise at the private educational institution "Bolashaq Saraiy" under the department of education of the Akmola region), graduate of the EP (Dzhakupova A.N.). The development plan of the educational program 8D01501 - Methodology of scientific research in mathematics education for 2023-2026 was considered at a meeting of the Department of Mathematics, Physics and Computer Science (Minutes No. 1 of 08.28.2023) and recommended by the Council of the Pedagogical Institute (Minutes No. 1 of 08.29.2023 G.). The department regularly reviews the EP development plan, monitors its implementation and assesses the achievement of learning goals, compliance with the needs of students, employers and society, and makes decisions aimed at continuous improvement of the EP (for example, minutes of the meeting of the Department of Mathematics, Physics and Informatics dated January 20, 2024. for discussion of educational programs for enrollment 2024).

According to the development plan of the educational program 8D01501 - Methodology of scientific research in mathematics education for 2023-2026, the specificity and uniqueness of EP 8D01501 is the study of fundamental disciplines that give an idea of the current state and prospects for the development of science, in its orientation to the regional labor market through elective courses, recommended by employers in the region.

When developing the goal of the EP, the labor market and the demands of employers are studied, trends in the development of science, trendy educational methods, modern requirements for the competencies of teaching staff and their demand (for example, the Act examination of educational program 8D01501 - "Methodology of scientific research in mathematical education" Kokshetau University named after Sh. Ualikhanov, compiled by the director of the pedagogical institute of the International University Astana, Ph.D., Associate Professor Akhmadieva Zh.K.).

Objectives in the field of implementation of the EP annually are discussed and approved at meetings of the department of mathematics, physics and computer science. Representatives of various stakeholders take part in the meetings. For example, in the discussion of educational programs for enrollment in 2024 (protocol meeting of the Department of Mathematics, Physics and Informatics on January 20, 2024) was held participation of Sattarova K. B., teacher of mathematics, teacher-researcher, "Akmola region Kokshetau of the Department of Education. department of education in Kokshetau city. M. Gabdullin No. 3 multidisciplinary gymnasium named after KMM, Shalabaeva A.B., mathematics teacher, pedagogue-researcher "Abai, Kokshetau, Akmola Oblast Department of Education No. 3 regional school for gifted children named after him (taught in the Kazakh language). mamandandyrylgan mektep boarding schools", students. Taking into account modern educational technologies and innovations in the field of teaching mathematics, proposals from employers, research results of teaching staff in OP 8D01501 – Methodology scientific research in mathematics education included such elective disciplines such as Scientific and methodological foundations of informatization of mathematical education, Modern methods of mathematical and computer modeling.

The results of assessing the achievement of learning goals, their compliance with the needs of students, employers and other interested parties are taken into account when making decisions to improve the educational program at meetings of graduating departments, academic councils, and the scientific and technical council of the university. Periodic monitoring of the implementation of the EP development strategy is carried out by representatives of the Department of Academic Affairs. The graduating department annually conducts monitoring to assess the sufficiency of available resources for the implementation of the EP development strategy, surveys among students and teaching staff.

Outsourcing allows you to improve the quality of training for doctoral students. For example, the involvement of foreign scientists in the supervision of doctoral dissertations contributes to the high-quality preparation of publications in international and rating publications. The result of scientific internships for doctoral students is:

The rule is the correction and submission of the article to journals included in the Scopus and Web of Science citation database on the research topic, correction of the explanatory note. The implementation of the accredited educational program and the development strategy of the EP are carried out in accordance with the mission and goals of the university. Under the EP, agreements were concluded for doctoral students' research practice and internship with Astana IT UNIVERSITY LLP (memorandum of cooperation No. 470-21 dated November 16, 2021). Every year, representatives of partner organizations, domestic and foreign scientists are invited to give lectures. For example, classes in the discipline "Scientific and methodological foundations of informatization of education" were conducted by Professor I. Lyublinskaya of Teachers College of Columbia University (agreement No. 67 dated 02/08/2022), Professor K. Moldashev was invited to give lectures and conduct classes in the discipline "Methods of Scientific Research". B. (Almaty, Kazakhstan), agreement No. 49 dated 08.25.2021, in the discipline "Academic Writing" - Professor Stoyanka Petkova (Bulgaria), agreement No. 50 dated 08.26.2021, agreements and memorandums of cooperation were signed with Kazakh universities and universities in the USA, Russia Federation, Poland, Republic of Lithuania (<https://www.global.shokan.edu.kz/ru/%D0%B7%D0%B0%D1%80%D1%83%D0%B1%D0%B5%D0%B6%D0%BD%D1%8B%D0%B5-%D0%BF%D0%B0%D1%80%D1%82%D0%BD%D0%B5%D1%80%D1%8B/>). Teachers and students of the Department of Mathematics, Physics and Computer Science published 40 scientific articles in journals recommended by the Committee for Education and Science of the Ministry of Education and Science of the Republic of Kazakhstan, 11 articles and reviews in peer-reviewed scientific publications, indexed in the Web of Science database, 4 – in Scopus, 15 – in foreign peer-reviewed scientific journals, 3 patents were issued, 14 scientific conferences, seminars, round tables were held, 120 reports and theses were prepared at conferences of various levels.

Graduate departments take part in the development and updating of the EP, Academic Council for the Pedagogical Institute, which includes teachers, employers and students. EP management develops and implements Measures for continuous quality improvement and

performance improvement based on analysis implementation of the goals and objectives of the development of educational programs. Construction of management processes such as design, planning, resource allocation, monitoring and evaluation of the effectiveness of the EP occurs on the basis of the Strategic Plan development of the Pedagogical Institute, internal and external regulations.

The university systematically collects and analyzes statistical data by the number of students and graduates, the available resources of the university, personnel, research and international activities.

Information about ongoing programs is posted on the official website in section "Educational programs" and includes expected learning outcomes, assigned qualifications, areas, objects, types and content of professional activities (<https://shokan.edu.kz/ru/educational-programs/metodologiya-nauchnyh-issledovaniy-v-matematicheskoy-obrazovaniy/>).

When developing a strategy for the development of EP, the graduating department takes into account possible potential risks. Among them is the insufficient activity of teaching staff in the publication of scientific articles in journals with a non-zero impact factor, insufficient level of attraction foreign professors in the educational process. For warning potential risks, the department has planned such measures as increasing publications co-authored with teachers of other departments (for example, Information systems, chemistry), stimulating the teaching staff of the department to improve their professional preparation, increase in the number of projects, increase in the number of projects submitted to the competition, organization of work at the invitation of foreign scientists.

The management of the EP ensures the participation of representatives from employers, teaching staff, students and other interested parties as part of collegial bodies management of EP and when making decisions on management issues of EP. For this purpose, when round tables, seminars are held during the development and discussion of the EP development plan, meetings of the department, which are attended by employers, teaching staff graduating departments, members of academic councils.

The management of the EP is ready for openness and accessibility for students, teaching staff, employers and other interested parties. Top management of the university (rector and vice-rector for supervised issues) have in their schedule days and hours of visiting for students and employees on personal issues. Regular surveys, the rector's blog on the university website, a personal reception with the rector, a helpline and help boxes are mechanisms for studying the needs, expectations and suggestions of all stakeholders, dialogue with senior management, and providing feedback.

Information about changes made to the EP is posted on the pages of the department, institute, and on social networks, for example,

<https://www.shokan.edu.kz/ru/schools/pedagogical-institute/kafedra-matematiki-fiziki-i-informatiki>, https://www.instagram.com/stories/mfi_ualikhanov/3361971919786158687?igsh=MWoxMW1yaXY5aWZwcA, <https://www.facebook.com/FizMat2019>, <https://www.facebook.com/profile.php?id=100072212410111>, (<https://www.facebook.com/share/p/t2NfnG89jkc7Pexh/?mibextid=oFDknk>).

The management of the educational program undergoes training in educational management programs. So, for example, head of the department of mathematics, physics and computer science Damekova S.K. from 11 until June 19, 2020, completed advanced training courses under the program "Management and Management in Education" – "Education Governance and Management", organized by Nazarbayev University, Nur-Sultan.

Analytical part

The quality assurance policy of NJSC "Kokshetau University named after Sh. Ualikhanov" reflects the relationship between scientific research, teaching and learning and is published on the university website. Management of EP 8D01501 - Methodology of scientific research in mathematics education is provided by the appropriate organizational structure of the university and is carried out in accordance with the legislation of the Republic of Kazakhstan in the field of

education, internal regulatory documents. In its activities, the University is based on an understanding of the quality of education as a comprehensive characteristic of educational activities and training of students.

The main directions of the policy in the field of quality of the Sh. Ualikhanov State University include the modernization of educational programs, the research process and innovation activities, infrastructure, strengthening human resources, the contingent of students and graduates, improving the organizational structure and increasing management efficiency.

The quality policy is formed and periodically reviewed on the basis of the Development Program of Kokshetau University named after Sh. Ualikhanov for 2023-2029, the results of an analysis of the satisfaction of key stakeholders and the functioning of the university's QMS. The university management is responsible for the quality of personnel training, research work, financial, economic and other activities, as well as for the activities of contractors and partners (outsourcing). The university's activities in implementing the accredited educational program are consistent with the strategy, mission, vision, values and development prospects of the university. According to OP 8D01501 - Methodology of scientific research in mathematics education, a development plan for 2023-2026 has been developed based on the principles of collegiality and openness. When developing the EP Development Plan, internal conditions for development were taken into account, the results of an analysis of the surrounding society and the problems that the development plan is aimed at solving were determined

possible risks of developing AP and measures to eliminate them. At the same time, the EP Development Plan is signed only by the head of the department of mathematics, physics and computer science and approved by the director of the pedagogical institute, which does not confirm the participation of representatives of various interested groups in the development of the EP Development Plan. Taking this into account, the head of the EP needs to develop a format and criteria for the participation of representatives of stakeholder groups, including employers, students and teaching staff in the formation of the EP development plan, and determine mechanisms for its revision.

The procedure for assessing the achievement of learning goals is carried out on the basis of decision-making at meetings of graduating departments, academic councils, and the university's scientific and technical council to improve the educational program. Periodic monitoring of the implementation of the EP development strategy is carried out by representatives of the Department of Academic Affairs. The graduating department annually conducts monitoring to assess the sufficiency of available resources for the implementation of the EP development strategy, surveys among students and teaching staff.

At the same time, in order to ensure regular monitoring of the effectiveness of the implementation of an accredited educational program, the management of the EP needs to determine criteria for assessing the effectiveness of changes in the EP.

In the Development Plan of an accredited EP, specificity and uniqueness are defined in the study of fundamental disciplines that give an idea of the current state and prospects for the development of science. At the same time, the uniqueness of the program is determined by its focus on the labor market of the region, through elective courses included on the recommendation of employers in the region. The specificity and uniqueness defined in the EP are quite general and do not reflect a specific connection with national and regional priorities, the university development strategy,

features of the content of the educational program, competencies that will be acquired by students, opportunities for students to build an individual educational trajectory, employment prospects, etc. In accordance with this, the management of the EP needs to reconsider the factors that determine the individuality and uniqueness of the EP.

The management of the OP determines possible risks and measures to eliminate them. At the same time, the risks identified in the OP development plan are poorly consistent and contradictory with the analysis of internal conditions for the development of OP presented in Section 2.3. For example, in section 2.3 it is stated: "The work on mobility has been carried out at

the proper level: foreign scientists are invited to give lectures and doctoral students are sent to universities in foreign countries,” and in section 6. Measures to reduce the impact of risks for EP, an insufficient level is unreasonably highlighted as a possible risk attracting foreign professors to the educational process. In addition, the EP Development Plan does not identify possible risks associated with the organization of the educational process, the content of disciplines, the formation of a contingent, the formation of student competencies and their assessment, etc. In accordance with this, the management of the EP needs to reconsider possible risks, identify risks associated with the organization of the educational process, the content of disciplines, the formation of a contingent, the formation of student competencies and their assessment, etc.

The management of the EP ensures the participation of representatives of employers, teaching staff, students and other interested parties in the collegial bodies governing the educational program, as well as their representativeness when making decisions on issues of managing the educational program.

The development program of Kokshetau University named after Sh. Ualikhanov for 2023-2029, within the framework of strategic development directions, defines goals for improving the educational environment, increasing the contribution of the university’s scientific and innovative activities to the socio-economic development of the region, improving the organizational culture that ensures high motivation and involvement of employees in implementation of strategic objectives of the university development.

To achieve the set goals, internal regulatory documents must define mechanisms for managing innovation within the EP, procedures for analyzing and implementing innovative processes. Taking this into account, the university needs to carry out work to update internal documents, including the Academic Policy.

The university management demonstrates evidence of readiness for openness and accessibility for students, teaching staff, employers and other interested parties. Top management of the university has in its schedule days and hours of visiting for students and employees on personal matters. The university regularly assesses the satisfaction of key stakeholders with the organization and implementation of all main activities. The rector's blog on the university website, the rector's personal reception, a helpline and help boxes ensure a study of the needs and expectations of students, teaching staff, employers and a prompt response to problems and proposals for improvement.

The management of the educational program regularly undergoes training in educational management programs.

Strengths/best practices:

The leadership of the EP demonstrates evidence of readiness for openness and accessibility for students, teaching staff, employers and other interested parties.

EEC recommendations:

- The management of EP 8D01501 - Methodology of scientific research in mathematics education needs to develop a format and criteria for the participation of representatives of stakeholder groups, including employers, students and teaching staff in the formation of the EP development plan, and determine mechanisms for its revision. Deadline: September 1, 2024.

- The management of EP 8D01501 - Methodology of scientific research in mathematics education, in order to ensure regular monitoring of the effectiveness of the implementation of accredited educational programs, it is necessary to determine criteria for assessing the effectiveness of changes in educational programs. Deadline: September 1, 2024.

- The management of EP 8D01501 - Methodology of scientific research in mathematics education needs to adjust the EP Development Plan in terms of revising the factors that determine the individuality and uniqueness of the EP. Deadline: September 1, 2024.

- The management of EP 8D01501 - Methodology of scientific research in mathematics

education in terms of the development of the educational program needs to reconsider possible risks, identify risks associated with the organization of the educational process, the content of disciplines, the formation of a contingent, the formation of student competencies and their assessment, etc. Deadline: September 1, 2024.

- The management of the university needs to carry out work to update internal documents in terms of defining mechanisms for managing innovation within the EP, procedures for analyzing and implementing innovative processes. Deadline: September 1, 2024.

EEC conclusions based on the criteria:

According to the “Educational Program Management” standard OP 8D01501 - Methodology of scientific research in mathematics education has 1 strong, 12 satisfactory positions and 2 suggesting improvement.

6.2. Information Management and Reporting Standard

• *The organization must demonstrate that it has a system for collecting, analyzing and managing information based on the use of modern information and communication technologies and software, and that it uses a variety of methods to collect and analyze information in the context of the organization.*

• *The management of the EP must demonstrate the existence of a mechanism for the systematic use of processed, adequate information to improve the internal quality assurance system.* • *OP management must demonstrate evidence-based decision making.* • *Within the framework of the EP, a system of regular reporting must be provided, reflecting all levels of the structure, including assessment of the effectiveness and efficiency of the activities of departments and departments, and scientific research.*

• *The PA must establish the frequency, forms and methods of assessing the management of the EP, the activities of collegial bodies and structural divisions, senior management, and the implementation of scientific projects.* • *The PA must demonstrate the determination of the procedure and ensuring the protection of information, including the identification of responsible persons for the accuracy and timeliness of information analysis and data provision.*

• *An important factor is the presence 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 interested parties, as well as mechanisms for resolving conflicts.*

• *The educational organization must demonstrate the presence of mechanisms for measuring the degree of satisfaction of the needs of teaching staff, staff and students within the educational program.*

• *The PA must provide for an assessment of the effectiveness and efficiency of activities, including in the context of EP.*

• *Information to be collected and analyzed within the framework of the EP should take into account:* • *key performance indicators;*

• *dynamics of the student population in terms of forms and types;*

• *academic levels, student achievement and attrition rates;*

• *student satisfaction with the implementation of the EP and the quality of education at the university;* • *availability of educational resources and support systems for students;* • *The PA must confirm the implementation of procedures for processing personal data of students, employees and teaching staff on the basis of their documented consent.*

Evidence

Kokshetau University named after Sh. Ualikhanov uses a system for collecting, analyzing and managing information, including in the context of EP based on the use of modern information and communication technologies and software.

In accordance with the Regulations on the internal quality assurance system (QMS P 1.01-2020), to assess the quality assurance system, the university organizes the collection and analysis of information through 1) development, implementation and use of information systems, 2) determination of stakeholder requirements for performance results, 3) conducting an assessment of stakeholder satisfaction with the educational services of the university, 4) analysis of the internal and external environment of the university, 5) internal audits of processes.

Information management within the framework of information systems is carried out through the official website of the university, the automated information system for managing the educational process "Platonus" (<https://platonus.kgu.kz/>), electronic educational portal (<https://shokan.edu.kz/ru/e-university/>), online schedule (<http://timetable.kgu.kz/>), Telegram Bot (https://t.me/shoqan_university_bot), MOODLE (<https://moodle.shokan.edu.kz/>), Salem Office (<https://salemoffice.shokan.edu.kz/sign-in>), network testing system, university electronic library, information systems and resources of the library complex, automated information system

accounting "1C Accounting", access control and management system, questioning (<https://feedback.shokan.edu.kz/>), Cochrane Library (<https://www.cochranelibrary.com/>), online test to determine the level of English (<https://shokan.edu.kz/ru/testy/english/>).

The procedure and conditions for disclosure of information at the NJSC "Kokshetau University named after Sh. Ualikhanov" are defined in the Information Policy (QMS P 1.16-2022) (https://drive.google.com/file/d/1-rOpXG3r_YM29hECoMoSLydNUBkz7Gyb/view).

The university's information policy is aimed at fully satisfying the information needs of interested parties for reliable information about the university, its activities and ensuring free and unburdened access to this information.

The posted information about the activities of the university and its achievements, educational programs being implemented is aimed at various interested target audiences: applicants, students, graduates, parents, employers and the general public. The university uses the following methods of disclosing information to interested parties: publishing information on the Internet resource (<https://shokan.edu.kz/ru>), posting on the Internet resource of the financial reporting depository, posting and distributing photo and video materials, delivery (forwarding) information on paper, publication of information in the media, informing the media during public speeches by university representatives, holding press conferences, press tours, meetings, seminars, release and mailing press releases, distribution of advertising, information and image printed products, holding PR campaigns and presentations and more. The published information is of an informational, image, explanatory nature. Satisfaction with published information is assessed based on the results of a questionnaire, survey, feedback, as well as through the rector's blog (https://shokan.edu.kz/ru/rector_message/). Information is presented in Kazakh, Russian and English. Articles, interviews, information materials about the activities of the university are prepared and sent by the structural divisions of the university to the Press Service. The press service processes, edits the presented information and coordinates ready-made information materials with managers and employees of the university's structural divisions responsible for preparing information.

The structure and procedure for posting information materials on the Boarding School network, as well as the rights, responsibilities and regulations of the activities of structural units providing information and program support for the university website are defined in the Regulations on the website (QMS P 3.03-2022)

(<https://drive.google.com/file/d/1pXbZXcN0tYyQ8Pd4-HCcbbbh2xIkwDQl/view>). Responsibility for the content of the site and timely submission of information lies with directors, heads of departments and heads of structural divisions.

The strategy and main directions of activity to ensure information flows in the media to create and promote a favorable image of Sh. Ualikhanov KU and achieve the competitiveness of the university are defined in the Image Policy (QMS P 1.09-2022) (<https://drive.google.com/file/d/1g6K5Y8R5GCz9wUNAiRJu2U91g-aVDrXj/view>). The image policy is based on a comprehensive assessment of current trends and problems in forming the image of the university, taking into account its educational, scientific and sociocultural potential.

To organize events to inform the population about the activities and specialties of KU named after Sh. Ualikhanov, the rector of the university approves a plan for career guidance, which includes the publication and distribution of information booklets on the specialties of KU named after Sh. Ualikhanov with excerpts from the rules of admission in Kazakh and Russian languages, design of information stands, conducting outreach work with graduates of all schools and colleges of the Akmola region and Kokshetau on the issues of choosing specialties and entering a university.

One of the main information resources of the university is the library. The unified library collection of the scientific library of Sh. Ualikhanov University consists of various types of publications of educational, educational and methodological, scientific, reference and information, fiction literature. The library collection, the availability of external electronic libraries, the Web of Science and Scopus databases provide teaching staff and students with access to scientific information.

To inform the public, meetings are held with the target audience: employers, heads of industry

enterprises, legal bodies, banks, on-site meetings with heads of rural district education departments and school directors (for example, on April 6, 2024, Akim of the Akmola region Akhmetzhanov M.M., Minister of Science and Higher education of the Republic of Kazakhstan Sayasat Nurbek met a delegation from Ohio State University in the city of Kokshetau.

In accordance with the Academic Policy of the University, a monitoring system is used to manage the quality of the University's activities. The purpose of monitoring is to assess the quality of the management, educational, research and educational work of the university, on the basis of which optimal decisions are selected for organizing the effective activities of KU named after. Sh. Ualikhanov. Monitoring is carried out in such areas as the effectiveness of university activity planning, university leadership and management, educational programs, teaching staff activities and teaching effectiveness, students and conditions for their personal development, scientific research activity and its effectiveness, material and technical, library and information resources. Sociological surveys at CU are conducted in accordance with the approved program and include surveys "The teacher through the eyes of students", "Quality of the examination session", "Quality of teaching in the master's degree", "No corruption!", "Academic mobility", Questionnaire "Student satisfaction" trilingual education", etc. The survey is carried out in order to organize feedback, to identify the needs of stakeholders, to study the quality of educational processes, to improve and improve the activities of all departments of the university. When surveying students, all aspects of their learning and life process are covered. Questioning of students is carried out in accordance with the topic (during the session, after the end of the internship, during the academic semester).

The results of current and final control of students' knowledge, rector's "knowledge cross-sections", etc. are also monitored.

The procedure for receiving requests, appeals and complaints, their consideration, taking measures and generating responses is regulated by the Regulations on working with complaints, appeals and requests (QMS P 5.02-2020). Inquiries, complaints and claims can be addressed to the university management, heads of departments in person, as well as by mail or through the official website of the university. All incoming written requests are received by the documentation support department, which forwards them to the university management. The university management makes the appropriate decision to consider the received application. Appeals are considered from 15 to 30 calendar days from the date of receipt.

The University monitors information on customer satisfaction (graduates and organizations). Analysis and evaluation of data and information obtained during monitoring and measurements is carried out to determine:

- compliance of educational activities and educational services with the requirements of State Educational Standards and customers;
- degree of customer satisfaction;
- successful planning;
- the effectiveness of actions taken to address risks and opportunities; – performance results of external suppliers;
- needs for improvement of the QMS.

The information obtained on the satisfaction of graduates and organizations that hired graduates is collected, analyzed and used to improve the educational process, improve methodological support and to determine lists of current specialties and disciplines before the start of the recruitment campaign.

Systematic analysis and assessment of the compliance of educational activities and educational services with the requirements of the State Educational Standard are carried out by the Center for Education and Science, the Office of the Registrar and directorates on an ongoing basis.

Analysis and assessment of the degree of consumer satisfaction is carried out by the rector, vice-rectors, heads of structural divisions during their interaction with students (meetings, surveys, answering questions, receiving letters, etc.).

Assessment of the success of planning, educational activities, as well as the effectiveness of actions taken in relation to risks and opportunities is carried out annually at all levels in the course

of summing up the results of activities for the academic year, as well as in comparison with the plans of departments and the university as a whole. For example, the Plan of Meetings of the Department of Mathematics, Physics and Computer Science for the 2023-2024 academic year provides for consideration of the issues Monitoring the current progress of students and the quality of education (meeting 3, November), Analysis of the progress of students based on the results of the winter session (meeting 5, January), Quality students' knowledge: analysis of current performance (meeting 7, March). The plan of meetings of the council of the Pedagogical Institute for the 2023-2024 academic year provides for consideration of issues: Report of doctoral students of the 3rd year of study (December), Analysis of the results of the State Attestation Commission (June), etc. As part of the meetings of the scientific and technical council of Sh. Ualikhanov State University in 2024 a report on the university's research work for 2023 was reviewed, an analysis of research work and the work of scientific circles of student institutes was carried out and schools, IGPA pilot project, research work with schoolchildren. The resulting assessment of planning is carried out by the rector during the annual analysis work of the university and determining priority areas of development for the next year. The need for improvements to the QMS is assessed as part of the annual review of the QMS by management.

The results of monitoring training sessions are discussed at department meetings. Issues of forming a contingent and the results of admission are considered at meetings of the University Academic Council, Rector's Office, departments, and Councils of Institutes. The competence of the Academic Council of the University also includes consideration of issues related to the implementation of the Policy and Goals in the field of quality, consideration of issues and decision-making on scientific, educational, methodological and educational activities, consideration of a long-term plan for the development of educational, laboratory and scientific laboratory facilities, consideration of issues related to implementation of the University Strategic Plan, consideration of the main issues and decision-making of the university's social development, summing up the university's activities for the past academic year, periodic review of reports on educational, research and educational work, consideration of reports on the activities of other structural units, consideration of educational programs of higher and postgraduate education in accordance with state compulsory education standards for approval by the Board, etc.

The Academic Council of the University organizes and conducts an internal assessment of the quality of educational programs, monitors the needs and profitability of educational programs in the regional labor market, monitors the compliance of educational and methodological documentation with the content of the educational programs, coordinates the activities of educational programs managers on directions, provides consultation and coordination with the University's Scientific and Technical Council on academic issues related to teaching, research and management, and holds meetings with stakeholders to update the content of educational programs.

As part of the EP on the Pedagogical Institute's Facebook page (<https://www.facebook.com/share/epbGDdn97Fw65Ha7/?mibextid=qi2Omg>) Information is regularly posted, including assessment of the effectiveness and efficiency of departments. Annual reports of the department on the results of activities are considered at a meeting of the department, at the Council of the Institute. At a meeting of the Institute Council, reports on the implementation of the main activities for the development of the educational process, improvement of its methodological support and organization of independent work of students, reports on the organization of educational work are considered; plans and reports of research work are considered. Based on these data, an analysis of the state of the department is carried out on issues of educational, methodological, scientific, as well as educational work with students, the state of the level of training of students and other issues related to assessing the effectiveness and efficiency of the department's activities are considered.

Decisions made by the collegial bodies of the university and the rector are brought to the attention of employees in the corresponding extracts from the minutes of meetings.

Through the AIS "Platonus", information on the educational process is collected, stored, processed, processes associated with the movement of students are automated

(enrollment/expulsion, transfers from course to course, academic leaves, etc.), monitoring the activities of staff and the student population (academic performance, percentage of quality, attendance, etc.) in real time, automatic generation of reports, support for the educational process using credit technology, organization of distance learning, automation of calculations, logging of the entire system for information security purposes. The AIS information system "Platonus" provides information and technical support for monitoring cash receipts from students, information and technical support for the activities of the university, staff and students, informing students on issues of the educational process, electronic interaction with the relevant authorized bodies. The AIS "Platonus" system uses the principle of delegation of roles: student, teacher, employee, head of department/department, director, etc.

Students participate in the process of evaluating EP by expressing their opinions and wishes at the end of the course of study or mastering a specific discipline, as well as through anonymous surveys to identify opinions and take into account comments and suggestions from direct consumers. The participation of students in the evaluation of educational programs is also facilitated by the improvement of student self-government at the university.

The university carries out regular work to prevent conflicts of interest and relationships, takes measures to improve the material well-being of teaching staff, support initiatives, and encourage the scientific activities of teaching staff and students.

Within the framework of the Law of the Republic of Kazakhstan dated May 21, 2013 No. 94-V "On personal data and their protection", in order to document the consent of students, employees and teaching staff to the processing of personal data, students give consent to the processing of personal data when signing Agreements on the provision of educational services, teaching staff and employees - when signing a separate document. These documents are stored in the personal file of each teaching staff and student.

Analytical part

The university collects and analyzes statistical data on the student population and graduates, available resources, personnel, consulting, research and international activities and other areas for intensive use in EP management processes, ensuring measurability, reliability, accuracy, timeliness and completeness of information. To automate the process of collecting, analyzing and managing information, the university uses modern information and communication technologies and software: information management within the official website of the university, automated educational process management information system "Platonus", electronic educational portal, Telegram Bot, MOODLE, Salem Office, network testing system, university electronic library, information systems and resources of the library complex, etc.

The procedure and conditions for the disclosure of information in the NJSC "Kokshetau University named after Sh. Ualikhanov", the structure and procedure for posting information materials on the Boarding School network, rights, responsibilities and regulations for the activities of structural units providing information and software support for the university website, strategy and main areas of activity to ensure information flows in the media are regulated by the relevant internal documents of the university. The safety of information is ensured by an unambiguous distribution of roles and functions in the information systems used, the presence of anti-virus programs, system administration of servers, a backup system on servers, and technical equipment of premises with servers.

Educational Program Guide 8D01501 - Research methodology in mathematics education ensures measurability, reliability, accuracy of information and demonstrates evidence-based decision making.

The university regularly collects and analyzes statistics on the student population in terms of forms and levels of education, on employment and career growth of graduates, academic performance, student achievements, satisfaction of key stakeholders with the implementation of the EP, quality of education at the university, available resources, availability of support systems for students, planning and effectiveness of actions taken in relation to risks and opportunities. At the same time, the university has not identified key performance indicators when collecting and

analyzing information within educational programs. In the Development Plan of the educational program 8D01501 - Methodology of scientific research in mathematics education for 2023 - 2026 in section 2.6, the formulated characteristics of EP achievements are formal in nature (for example, "An important indicator of the demand and relevance of educational programs, their compliance with modern trends in education is the academic mobility of students and teaching staff"). Section 3 of the Development Plan does not justify the need to solve problems. Section 4 defines the main goals and objectives of the educational program development plan, but the key performance indicators of the objectives are not formulated. Taking this into account, the head of the accredited educational program needs to update the EP development plan taking into account the University Development Program, indicating the indicators available for measurement. According to the accredited EP 8D01501 - Methodology of scientific research in mathematics education, an analysis of the dynamics of the contingent of doctoral students is not carried out. Since the 2022-2023 academic year, there has been no admission of students in an accredited EP. At the same time, the reduction or absence of the number of students by the head of the educational program in the Development Plan of the educational program 8D01501 - Methodology of scientific research in mathematics education for 2023 - 2026 is not considered as a potential risk and, accordingly, no measures are planned to eliminate it.

The EP provides for a system of regular reporting, reflecting all levels of the structure, including assessment of the effectiveness and efficiency of activities divisions and departments, scientific research. Reporting is carried out annually at all levels in the course of summing up the activities for the academic year of departments (in comparison with work plans) and the university as a whole. The resulting assessment of planning is carried out by the rector during the annual analysis of the university's work and determination of priority areas of development for the next year. Decisions made by the collegial bodies of the university and the rector are brought to the attention of students and employees in the corresponding extracts from the minutes of meetings.

In accordance with the approved program at KU. Sh. Ualikhanov conducts sociological surveys of various thematic areas, for example, "The teacher through the eyes of students", "The quality of the examination session", "The quality of teaching in the master's degree", etc. Employers, teaching staff, and students take part in the work of collegial bodies for managing the educational program.

The procedure for receiving requests, appeals and complaints, their consideration, taking measures and generating responses is regulated by the Regulations on working with complaints, appeals and requests (QMS P 5.02-2020).

The implementation of procedures for processing personal data of students, employees and teaching staff is carried out taking into account their documented consent. Students give written consent to the processing of personal data when signing Agreements on the provision of educational services, teaching staff and employees - when signing a separate document. These documents are stored in the personal file of each teaching staff and student.

Strengths/best practices:

No strengths identified.

EEC recommendations:

- The head of the EP 8D01501 - Methodology of scientific research in mathematics education needs to update the EP development plan taking into account the University Development Program, indicating the indicators available for measurement. Deadline - 09/01/2024.

- The head of EP 8D01501 - Methodology of scientific research in mathematics education needs to ensure a systematic analysis of the student population and determine in the Educational Program Development Plan measures to eliminate the risk of a lack of applicants for training. Deadline - 09/01/2024.

EEC conclusions based on the criteria:

According to the "Information Management and Reporting" standard OP 8D01501 -

Methodology of scientific research in mathematics education has 14 satisfactory positions and 2 suggesting improvement.

- 6.3. Standard “Development and approval of an educational program”** • The PA must define and document procedures for developing EPs and their approval at the institutional level.
- The management of the EP must ensure that the developed EP meets the established goals, including the intended learning outcomes.
 - The management of the EP must demonstrate the existence of mechanisms for revising the content and structure of the EP, taking into account changes in the labor market, the requirements of employers and the social demands of society.
 - The management of the EP must ensure the availability of developed models of the EP graduate that describe learning outcomes and personal qualities.
 - The management of the EP must demonstrate that external examinations of the content of the EP and the planned results of its implementation have been carried out.
 - The qualification awarded upon completion of the EP must be clearly defined and correspond to a certain level of the NQF and QF-EHEA.
 - EP management must determine the influence of disciplines and professional practices on formation of learning outcomes.
 - An important factor is the ability to prepare students for professional certification.
 - The management of the EP must provide evidence of the participation of students, teaching staff 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 for the level of study (bachelor's, master's, doctoral studies).
 - The structure of the EP should provide for various types of activities to ensure that students achieve the planned learning outcomes.
 - 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 University develops its educational programs in accordance with the Academic Policy (<https://shokan.edu.kz/ru/documents/polozheniya/>) and the university standard QMS STU 4.03 “Design, development of educational services, management of educational and organizational processes” (<https://drive.google.com/drive/folders/1yatX8II9XiyN5agLgnPA2tFLWYtV5tVw>). The content and structure of educational programs are determined in accordance with state compulsory standards of higher and postgraduate education and are implemented through working curricula and working curricula, common for all forms of education, based on educational and methodological complexes of the specialty and disciplines. The methodological basis for developing the content of educational programs is the principles of modular learning, interdisciplinary, multidisciplinary and transdisciplinary approaches.

The effectiveness of learning outcomes is achieved by following an integrated approach to the development of educational programs, curricula and academic disciplines. Learning outcomes are determined on the basis of the Dublin descriptors of the corresponding level of education and are expressed through competencies. Learning outcomes are formulated both for the entire program and for each module and individual discipline.

The design and development of educational programs is coordinated by the Councils for Academic Quality of Institutes and Higher Schools. The main tasks of the Academic Quality Council include the development of an educational program with training trajectories based on ensuring continuity of levels of continuing education together with employers and the university’s educational and methodological center, organizing work to improve the quality of educational and methodological support for EP, analysis and implementation of the best world and domestic experience in the content and technology of implementation of the educational program, interaction with employers and graduates of the educational program to update the requirements for graduate competencies and assess their quality training, etc. The educational program provides for various types of educational work, their relationship, and defines tools for measuring and recording learning outcomes.

Development of an educational program includes 1) joint discussion of departments with employers about the graduate’s competencies, taking into account professional standards, 2) development of the content of the educational program, a catalog of elective disciplines, taking into account proposals from employers and regulatory documents in the field of education, 3) defense of the educational program with the invitation of all interested parties

(employers, students, graduates, teaching staff), 4) consideration of the educational program at meetings of the educational and methodological council and the Academic Council, approval of the educational program at the Academic Council.

The accredited EP 8D01501 - "Methodology of scientific research in mathematics education" provides opportunities for periodic updating of content and construction of individual educational trajectories.

The implementation of the EP is aimed at training competitive, competent scientific and pedagogical personnel with professional, scientific competencies and skills in their implementation to meet the needs of science and the mathematical education system at different levels. The educational program was developed and updated with the participation of internal and external stakeholders (employers, doctoral students of the educational program and stakeholders in the field of professional activity in the field of mathematics) (for example, minutes of the meeting of the Department of Mathematics, Physics and Computer Science dated January 20, 2024) (https://www.facebook.com/story.php?story_fbid=409940261423051&id=100072212410111&mibextid=oFDknk&rdid=oJqrp6ElgvqILR0s).

When developing educational programs and determining the expected results, the recommendations of 1) employers are taken into account through participation in the examination of educational programs, surveys to assess the quality of training of graduates, 2) students through participation in the work of academic committees, evaluation of educational programs through surveys, 3) other educational institutions, industrial enterprises and public organizations through feedback mechanisms.

Representatives of employers, representatives of students and (or) graduates, teaching and research workers taking part in the implementation of the educational program are invited to conduct an examination of the educational program. The results of the examination are documented in an act. For example, the director of the Pedagogical Institute of Astana International University, Ph.D., Associate Professor Zh.K. Akhmadieva took part in the examination of the accredited educational program. Internal quality assessment and examination of educational programs are provided by the Academic Council of the university, the educational and methodological council of the university and the Academic Quality Council of the institute/higher school. At meetings of the University Academic Council, issues related to the quality of education, organization of internships, employment of graduates are considered, and documentation on the planning and organization of the educational process is approved. Work curricula (syllabuses) are discussed at department meetings, considered at the Council for Academic Quality of the institute/higher school, revised and supplemented taking into account the achievements of science and practice, new requirements for the training of specialists (for example, minutes of the meeting of the Department of Mathematics, Physics and Informatics No. 10 dated June 28, 2021, minutes of the meeting of the educational and methodological commission No. 10 dated June 30, 2021). Based on the results of the preliminary examination, work study programs are approved by the Academic Quality Council of the institute/higher school.

The methodological content of the educational program includes a catalog of elective disciplines, educational and methodological complexes for disciplines, and a work program for practices. Educational and methodological complexes of disciplines (UMCD) undergo preliminary examination at meetings of departments and methodological commissions of the university (for example, Minutes of the meeting of the Council on Academic Quality of the Pedagogical Institute No. 1 dated 08/28/2023). Based on the results of the examination, teaching materials are approved and recommended for publication by the university's educational and methodological council.

To assess the effectiveness of the EP, information such as academic performance, absences, and downloading teaching materials for EP disciplines is collected and processed in the Platonus AIS. Compliance of the goals of educational programs with the university development strategy is achieved through the development of plans for the development of educational programs.

The graduate model for an accredited EP is defined in the Development Plan of the educational program 8D01501 Methodology of scientific research in mathematics education for 2023-2026. The graduate model represents the expected result of the activities of all subjects involved in the implementation of the educational program, and serves as the basis for the design

of the educational program.

university policies. When developing the graduate model, the level of development of science and scientific research, the requirements of professional standards, the necessary knowledge and skills for professional activities, and specific social and psychological qualities that ensure the effectiveness of activities are taken into account.

Upon completion of training based on the results of defending a dissertation, graduates are awarded the degree of Doctor of Philosophy PhD in the educational program 8D01501 - "Methodology of scientific research in mathematics education." Awareness of students about the assigned qualifications in the relevant EP is ensured through the information resources of the university, departments and official websites (<https://www.shokan.edu.kz/ru/news/?page=2/>).

Requirements for the development of professional competence in students are reflected in the work programs of the disciplines.

OP 8D01501 – "Methodology of scientific research in mathematics education" consists of three modules: Module 1 - Methods of scientific research, Academic writing, Scientific and methodological foundations of informatization of mathematical education / Modern methods of mathematical and computer modeling, Pedagogical practice, Module 2 - Methodology of scientific research and methods of teaching and education in the field of mathematics, Current problems of mathematical analysis and probability theory/Statistical methods in pedagogical research, Research practice, module 3 - doctoral student's research work, including internship and doctoral dissertation. The disciplines of the first module are aimed at developing academic skills and theoretical knowledge, the disciplines of the second module allow doctoral students to develop skills in processing theoretical knowledge and experimental data, the disciplines of the third module develop students' skills in performing research. To develop the professional competence of EP graduates, doctoral students undergo teaching practice at the university, and research practice can be carried out under a contract at a third-party university, which will ensure the most effective research on the topic of the dissertation (for example, Memorandum of Cooperation with Astana IT University LLP dated 16.11.2021 G.). The procedure for organizing practices is set out in the STU 4.05 standard (<https://drive.google.com/file/d/1aFL-KIVPCrDK8z2-3w12XEuPkX-M2MIA/view>).

As part of academic mobility, doctoral students are given the opportunity to earn credits in other educational or scientific organizations, including abroad (QMS STU 4.08-2022). Doctoral students are given the opportunity to choose internal and external consultants in accordance with the requirements of the department.

The disciplines of the curriculum are interconnected with the purpose of the educational program and learning outcomes. For example, the discipline "Methodology of scientific research and methods of teaching and education in the field of mathematics" is aimed at developing a number of competencies, among them UK3 - "Organizes scientific research in the field of pedagogy, psychology and in the field of theory and methodology of teaching mathematics in school and university on the basis knowledge of the methodology of psychological and pedagogical research", PC5 - "carries out methodological support for the educational process" related to learning outcomes. The relationship between the disciplines of the curriculum and the purpose of the educational program and learning outcomes is also traced.

The university is constantly working to ensure the continuity of education levels "bachelor's - master's - doctorate". Based on the principle of continuity, such particular methodological issues as building the content of academic discipline programs at different levels of education and designing the content of the educational process are resolved.

Analytical part

The university has defined and documented procedures for the development of EP and their approvals at the institutional level. The development and implementation of educational programs is carried out in accordance with the requirements of the NQF, QF-EHEA, State Educational Standards of the Republic of Kazakhstan, and internal regulatory documents. The content of EP 8D01501 – "Methodology of scientific research in mathematics education" meets the requirements of regulatory documents, the content of academic disciplines and learning outcomes corresponds

to the level of training. The curriculum and work program of each discipline correspond to the goals of the educational program and ensure the achievement of learning outcomes by all graduates of the program. The university has developed mechanisms for revising the content and structure of the EP, taking into account changes in the labor market, the requirements of employers and the social demands of society. Representatives of employers, students and (or) graduates, teaching and research workers taking part in the implementation of the educational program are involved in the procedures for discussing and examining educational programs. The graduate model for an accredited EP is defined in the Development Plan of the educational program 8D01501 Methodology of scientific research in mathematics education for 2023-2026. The graduate model describes learning outcomes and personal qualities. Based on the results of defending a dissertation, graduates of an accredited educational program are awarded the degree Doctor of Philosophy PhD in the educational program 8D01501 - "Methodology of scientific research in mathematics education." The accredited educational program provides for the study of basic and specialized disciplines, the completion of teaching and research practices, the implementation of doctoral research work, including an internship and a doctoral dissertation. The EP curriculum has a modular structure. The disciplines of the educational program are interconnected with the purpose of the educational program and learning outcomes. The content of professional practice programs for doctoral students is aimed at achieving learning outcomes. The University has established the frequency, forms and methods of assessing the quality of educational programs.

Strengths/best practices:

No strengths identified.

EEC recommendations:

no recommendations

EEC conclusions based on the criteria:

According to the standard "Development and approval of educational programs" OP 8D01501 - Methodology of scientific research in mathematics education has 12 satisfactory positions.

6.4. Standard "Continuous monitoring and periodic evaluation of educational programs"

• *The educational institution must determine mechanisms for monitoring and periodically evaluating the educational program to ensure the achievement of goals and meet the needs of students and society and show the focus of the mechanisms on the continuous improvement of the educational program.*

• *Monitoring and periodic evaluation of the EP should include:*

• *content of programs in the light of the latest scientific achievements in a particular discipline to ensure the relevance of the taught discipline;*

• *changes in the needs of society and the professional environment;*

• *workload, academic performance and graduation of students;*

• *effectiveness of student assessment procedures;*

• *expectations, needs and satisfaction of students with EP training; • educational environment and support services and their compliance with the goals of the EP.*

• *The management of the EP must demonstrate a systematic approach to monitoring and periodically assessing the quality of the EP.*

• *PO, PO management must determine a mechanism for informing all interested parties about any planned or taken actions regarding the OP.*

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

Evidence

The procedure for monitoring and periodic evaluation of EP at the university is carried out on the basis of internal regulatory documents, which are posted on the university website (<https://shokan.edu.kz/ru/documents/>):

1. QMS P 4.45-2022 Academic policy;
2. QMS RK 01-2020 Quality Manual;
3. QMS P 1.01-2020 Regulations on the internal quality assurance system; 4. QMS P 4.22-2021 Regulations on the Council for Academic Quality; 5. QMS P

4.24-2021 Regulations on the Academic Council;

6. QMS DP 04-2020 Data analysis. Continuous improvement of the effectiveness of the quality management system;

7. QMS STU 4.03-2022 Design, development of educational services, management of educational and organizational processes;

8. QMS STU 5.01-2023 Policy for assessing the educational achievements of students. The University defines and consistently applies procedures for monitoring, periodic evaluation and revision of educational programs to ensure their effective implementation and create a favorable learning environment for students, achieve goals and meet the needs of students and society. Learners, employers and other stakeholders participate in the evaluation and review of educational programs.

The basis for monitoring, analysis and revision of educational programs are:

- approval of new standard curricula;
- introduction of new professional standards;
- proposals from employers formed based on the results of a survey or joint events with graduating departments;

- recommendations of the chairmen of the SAC;

- results of research activities of the university teaching staff; - changes in regulatory requirements for the development of educational programs. Monitoring of educational programs is carried out in order to identify

compliance with the requirements of the State Educational Standard, the needs of students and society, achieving the goals of the EP, flexible response to the needs of the labor market, as well as to ensure that new achievements in science and technology are taken into account. The following components of the educational program are subject to monitoring: 1) structure of the educational program; 2) the ratio of the basic and variable parts; 3) availability of elective disciplines; 4) types and types of practices; 5) educational and methodological support; 6) accessibility of the electronic information and educational environment (EIOS); 7) staffing; 8) logistics. These components are assessed through internal independent assessment during systematic monitoring, as well as during the accreditation of the educational program. The process of monitoring, evaluating and improving the EP is the responsibility of the director of the institute/higher school and is controlled by the Department of Academic Development. Issues of the quality of educational programs are systematically considered at meetings of the rector's office and the Academic Council of the university. Monitoring of the status of issues under consideration is carried out by commissions created by order of the university or institute. The implementation of decisions made is controlled by the commission and discussed at meetings of the Academic Council of the University and the Council of the Institute. If inconsistencies are identified, changes are made to the educational documentation as corrective actions: the working curriculum of the EP; working curriculum of disciplines; lecture courses, plans

practical and laboratory classes, internship programs; teaching materials for students and teaching staff; content and procedure for conducting intermediate and final certifications.

Evidence of changes made to educational programs are decisions of collegial bodies (for example, minutes No. 1 of the meeting of the Council on Academic Quality of a Pedagogical Institute dated August 28, 2023), action plans to improve the educational program, updated methodological support based on decisions of collegial bodies, minutes of events, the annual report of the Academic Council on the results of monitoring and evaluation of educational programs.

The Department of Mathematics, Physics and Computer Science monitors the provision of EP disciplines with educational and methodological literature and, if necessary, prepares applications for the purchase of printed and electronic resources for the scientific library collection. The plan of educational and methodological work of the department includes a schedule for revising the working curricula and programs of academic disciplines in the areas of training. Every year, at department meetings, with the participation of stakeholders, curricula and programs of academic disciplines are reviewed, changes made to the EP for admission to the new academic year are discussed (for example, minutes of the meeting of the Department of Physics, Mathematics and Informatics to discuss educational programs for admission 2024 from 01/20/2024 G.). Information

about educational programs and changes made to them based on the results of the discussion is published on the university website (<https://shokan.edu.kz/ru/educational-programs/metodologiya-nauchnyh-issledovaniy-matematicheskoy-obrazovaniy/>), on social networks (<https://www.facebook.com/share/p/Q6QBuud4Vt2AJB9s/?mibextid=oFDknk>, <https://www.facebook.com/share/p/uSBJyK8zaDt5QyGN/?mibextid=oFDknk>, <https://www.facebook.com/share/p/qNKuCqQ13rvtyhZA/?mibextid=oFDknk>).

The department monitors and periodically evaluates the effectiveness of proposals made for changes to the EP using a feedback mechanism (survey, interviews, surveys of students, key employers - https://docs.google.com/forms/d/e/1FAIpQLScM4-hQ1wBDkD6FqO5gj79ZThBoEK6eG3s1D bhdTbDA7LwMg/viewform?usp=sf_link), through analysis of student performance, quality of education, monitoring of all types of doctoral students' activities: research and development work, implementation of individual plans, plans for scientific publications, internships, including foreign ones. Doctoral students report at the end of each semester on the implementation of all types of activities at a meeting of the department, the Educational and Methodological Council of the Pedagogical Institute, the Scientific and Technical Council of the university (for example, minutes of the meeting of the Department of Mathematics, Physics and Computer Science No. 10 dated June 16, 2023 to discuss dissertations doctoral students of the 3rd year of study OP 8D01501 – “Methodology of scientific research in mathematical education”). Corrective actions are taken if necessary.

In order to improve the organization of the educational and research process, the QMS department and the graduating department are conducting a survey of doctoral students. on the subject of satisfaction with the quality of teaching academic disciplines, the quality of scientific consulting, and the organization of the educational and research process in doctoral studies. The survey of doctoral students is carried out on a regular basis after the interim certification of doctoral students (examination session and defense of research reports) by sending a link to the questionnaire in Google Form (https://docs.google.com/forms/d/e/1FAIpQLSczdykaZa6g5cVMCYwd6eQ7jLV8SI6AMn8Jn4AAsoexv_uLZg/viewform?usp=sf_link). Based on the results of the survey, recommendations are developed to eliminate the identified shortcomings and decisions are made to improve the quality of doctoral student training. For example, according to the results of a survey in the 2022-2023 academic year, 100% of doctoral students note the quality organization of the educational process, including professional practices, effectiveness of training sessions, quality of assessment, creativity and activity of teachers, 93% are satisfied with various aspects of the educational process, 80% note that the results of training in the EP were explained, 80% of doctoral students are satisfied with the ratio of theoretical knowledge and practical skills in the training program, 60% of doctoral students are satisfied with the information support of the educational process, constructive feedback from the teacher when discussing work.

Funds of assessment tools (questions, tasks, situations, etc.) used for ongoing monitoring of progress, interim and final certification, contain materials developed on the basis of real practical situations and allow assessing the development of professional competencies in students. The assessment procedure for students includes ongoing monitoring of progress and intermediate certification using a point-rating assessment. Intermediate means of control for each discipline and evaluation criteria are indicated in the work programs of the academic discipline.

To improve the quality of training of doctoral students, professors with extensive scientific and pedagogical experience and experience in supervising doctoral dissertations are included in the advisory commissions. For example, Kozhabaev K.G., professor, doctor of pedagogical sciences, under his leadership successfully passed the defense for the degree of PhD Gabdullin R.S. (2019), Zykrina S.Zh. (2022); Dalinger V.A., Professor, Doctor of Pedagogical Sciences Omsk State Pedagogical University, under his leadership 79 candidates and 5 doctors of science defended their defenses.

Analytical part

The university monitors and periodically evaluates educational programs to achieve their goals and learning outcomes, as well as to identify the compliance of the EP with the requirements of the State Educational Standard, the needs of students and society, the achievement of the goals of the EP, flexible response to the needs of the labor market, and also taking into account new achievements of science and technology. Monitoring and evaluation of EP includes a survey of students, teachers, employers, analysis of students' progress, information and resource support for the educational process, the degree of compliance of the EP with established regulatory and legislative requirements. The procedure for monitoring and periodic evaluation of the EP is reflected in the internal regulatory documents of the university posted on the website (<https://shokan.edu.kz/ru/documents/>) and is aimed at continuous improvement of the EP.

At the same time, a survey of students was conducted as part of the visit of the external expert commission of the IAAR to KU named after. Sh. Ualikhanov showed that only 35 out of 52 respondents (67.3%) completely agree with the timeliness of assessing students' educational achievements; only 37 out of 52 respondents (71.2%) believe that the system for assessing educational achievements (seminars, tests, questionnaires, etc.) reflects the content of the course, only 32 out of 52 students surveyed (61.5%) completely agree that the teacher objectively evaluates students' achievements.

Issues of the quality of educational programs are regularly considered at meetings of the rector's office and the Academic Council of the university. Monitoring of the status of issues under consideration is carried out by competent commissions created by order of the university or institute. Confirmation of the effectiveness of the ongoing monitoring and periodic evaluation of the EP to ensure the achievement of the goal and meet the needs of key stakeholders are the results of a survey of students conducted as part of the visit of an external expert commission IAAR at KU named after. Sh. Ualikhanov. According to the survey results, 43 out of 52 students surveyed (82.7%) were completely satisfied with the quality of curricula and teaching methods in general; 9 out of 52 students surveyed (17.3%) were partially satisfied. The university has developed mechanisms for informing all interested parties about any planned or taken actions in relation to the educational program. At the same time, the information published on the university website about the educational programs being implemented does not reflect the changes made to the EP, but contains only a description of the main sections of the EP (https://shokan.edu.kz/ru/educational-programs/metodologiya_nauchnyh-issledovaniy-v-matematicheskom-obrazovanii/), approved educational programs are not posted on the site.

Strengths/best practices:

No strengths identified.

EEC recommendations:

- The management of EP 8D01501 - Methodology of scientific research in mathematics education needs to monitor the effectiveness of student assessment procedures and update assessment procedures in the educational documentation of the EP. Deadline - 09/01/2024.
- The management of EP 8D01501 - Methodology of scientific research in mathematics education, when posting information about the educational program, focus the attention of interested parties on the changes made. Deadline - 09/01/2024.

EEC conclusions based on the criteria:

According to the standard "Continuous monitoring and periodic evaluation of educational programs" OP 8D01501 - Methodology of scientific research in mathematics education has 9 satisfactory positions and 1 suggesting improvement.

6.5. Standard "Student-centered learning, teaching and assessment" in academic performance"

- EP management must ensure respect and attention to different groups of students and their needs, providing them

with flexible learning paths.

- EP management must ensure the use of various forms and methods of teaching and learning.
- An important factor is the presence of one's own research in the field of teaching methods of EP academic disciplines.
- The management of the educational program must demonstrate the existence of a feedback system on the use of various teaching methods and evaluation of learning outcomes.
- EP management must demonstrate support for student autonomy while providing guidance and assistance from the teacher.
- The management of the EP must demonstrate the existence of a procedure for responding to student complaints.
- The PO must ensure consistency, transparency and objectivity in the learning outcome assessment mechanism for each EP, including appeals.
- The educational institution must ensure that the procedures for assessing the learning outcomes of EP students comply with the planned results and goals of the program, publishing criteria and assessment methods in advance.
- The educational institution must define mechanisms to ensure that each graduate of the educational program achieves learning outcomes and ensure the completeness of their formation.
- Assessors must be familiar with modern methods of assessing learning outcomes and regularly improve their skills in this area.

Evidence

Kokshetau University named after. Sh. Ualikhanov implements processes student-centered learning in educational programs. To this end, the university is developing flexible learning paths, creating conditions to increase students' motivation and involvement in the educational process, ensuring consistency and objectivity in assessing learning outcomes, and creating conditions for the development of student autonomy.

The university management provides equal opportunities for students, regardless of the language of instruction, to develop an individual educational program. Students with special needs have the opportunity to receive education using distance technologies, which act as a means of communication between the student and the teacher. Academic support for students with special needs is implemented through the preparation of an individual curriculum, developed jointly with the adviser, and coordination with the office registrar.

Students with special educational needs are provided with access to library and information resources, free movement around academic buildings, dormitories and social facilities of the university; ramps and pictograms are installed in educational buildings. To meet the needs of such students in educational and methodological support, the university plans to purchase special educational literature, etc. Decisions on individual requests of students are made by institutes/schools. The student can study individual disciplines in other educational organizations, including abroad. A student on a paid basis can create his own individual curriculum with fewer credits than is established for mastering the educational program of the corresponding level, while the period of study increases.

To organize educational activities, students are provided with a reference book - a guide in two languages. The University's Academic Policy is posted on the university's website (QMS P 445-2022, Reg. No. 101 dated 12/21/2022). The University's Academic Policy reflects a system of measures and procedures for planning, managing educational activities and effective organization of the educational process, aimed at implementing student-centered learning and improving the quality of education.

To form student autonomy within the framework of the accredited EP 8D01501 - "Methodology of scientific research in mathematics education", goals and expected learning outcomes that are understandable for doctoral students are formed (<https://shokan.edu.kz/ru/educational-programs/metodologiya-nauchnyh-issledovaniy- v matematicheskoy-obrazovanii/>), active learning methods are being introduced, student-oriented and research approaches, independent work of students and the role of student government are strengthened, favorable conditions for learning are created. For example, according to the work program for the discipline "Scientific and methodological foundations of informatization of mathematical education," problem-based learning, the discussion method, the reflection method, and cases are used. Within the framework of the disciplines "Methods of Scientific Research" and "Methodology of Scientific Research and Methods of Teaching and Education in the Field of Mathematics," doctoral students develop a holistic understanding of the pedagogical principles of teaching and education, technologies, and analysis of the results of the research process. The acquired knowledge is used by doctoral

students when writing the theoretical sections of their doctoral dissertation. In the set of forms and methods of interactive learning for doctoral students, the project method occupies an important place. Within the framework of the discipline “Statistical methods in pedagogical research,” doctoral students master the skills of working with sources of scientific information, the concept of a mathematical model as a means of scientific knowledge, the structure of modeling and its stages, mathematization of natural sciences, formulation of problems and methods for their implementation. This discipline examines the basic statistical methods, their definitions and properties, as well as examples of their application in pedagogical research, the advantages and limitations of statistical methods are discussed. For all disciplines, work programs reflect learning outcomes and competencies.

Assessment and adjustment of teaching methods is carried out within the framework of the organization of open classes, mutual attendance of classes, seminars, the work of educational and methodological commissions, master classes, which are planned by the Council on Academic Quality (for example, minutes of the meeting of the Council on Academic Quality of the Pedagogical Institute No. 1 dated 28.08.2023).

Students are involved in the development of EP. The doctoral student’s academic workload consists of attending classroom classes, independent work, and participation in control activities. To check the educational achievements of students, the following types and forms of knowledge control are provided: current control; boundary control; final control, carried out orally. In order to determine the level of knowledge of a doctoral student, a rating control system has been developed. The university uses a 100-point scale for determining the rating of a doctoral student. Analysis of current progress involves assessing the progress of doctoral students in the framework of seminars, colloquiums, SRDP, self-study and control activities. Analysis of the current progress of doctoral students is carried out through a rating system, the advantage of which is the transparency of its mechanisms. During the assessment, the graduating department has the opportunity to identify the main trends in the academic development of doctoral students, diagnose the degree to which goals have been achieved, and adjust the content of the educational program, the development of which will allow doctoral students to develop professional competencies. Based on the results of monitoring current progress, a decision is made to transfer doctoral students from course to course. As part of the “Student Science Week” (April 15, 2024), a scientific and reflective seminar was held to assess the readiness of a doctoral student for research activities. Criteria and methods for assessing all types of controls are published before the start of training in work programs (syllabuses) and educational and methodological complexes of disciplines, which are posted in the electronic library.

The management of the EP determines and implements measures to maintain constant communication with consumers, informs them about changes in curricula and work programs, areas of specialist training, receives feedback from consumers, including complaints, claims and wishes (QMS P. 5.02-2020, Reg. No. 34 of November 30, 2020 “Regulations on working with complaints, appeals and requests”). At KU named after Sh. Ualikhanov, the system for considering complaints from doctoral students is carried out according to the following scheme: advisers → department → directorate → vice-rector for academic affairs → rector. Consideration of complaints and suggestions is carried out through the rector’s blog (<https://shokan.edu.kz/rector/>), virtual reception, established reception hours for the rector and vice-rectors.

Information on the academic achievements of doctoral students is reflected in the Platonus AIS system. Each student in the AIS “Platonus” system has a personal account where his data, a catalog of elective disciplines, an individual curriculum, history of educational achievements, transcript, etc. are posted. In the AIS “Platonus” system, each doctoral student can view the schedule of classes and exams, current and intermediate performance, familiarize yourself with the catalog of elective disciplines, as well as the procedures for taking computer testing online. Access to your personal account is provided only with a personal login and password. Criteria and methods for assessing the knowledge of doctoral students, providing for the procedure for conducting current, intermediate and final control of knowledge, final certification, the current methodology for assessing the performance of doctoral students for issuing ratings grades for disciplines are presented in the reference guide, which is issued in the 1st year and is

posted in the AIS “Platonus” of the university.

According to the accredited EP, teachers introduce the results of their own scientific research into the educational process of doctoral students, use original materials from electronic textbooks, teaching aids and monographs. For example, in the course “Current problems of mathematical analysis and probability theory”, Doctor of Physical and Mathematical Sciences, Professor Kuttykozhaeva Sh.N. actively uses visual teaching methods, the electronic manual “The Method of Fictitious Regions for the Navier-Stokes Equations.” In teaching the discipline Scientific and methodological foundations of informatization of mathematical education" Candidate of Pedagogical Sciences Damekova S.K. uses the case method, which encourages doctoral students to independently study the material and use the practical skills and theoretical knowledge they have acquired. Based on the results of completing cases, doctoral students prepare scientific articles for publication using access to international scientometric databases. In the process of working with scientometric databases, doctoral students also study the publications of KU scientists Sh. Ualikhanov. The Department of Mathematics, Physics and Computer Science regularly holds scientific and methodological seminars. Frequency: once every two months. At the seminar, leading teachers of the department share with their colleagues the most effective and proven methods of organizing lectures and practical classes, doctoral students make presentations on the results of their research. The results of the teaching staff's own research in the field of methods of teaching EP disciplines have been published in various journals, for example, an article by Gabdullin R.S., Kostangeldinova A.A., Ermaganbetova S.K. "The use of contextual learning in educational activities" was published in the scientific journal "Science and Education in Civil Defense", No. 2 (42), 2021, article by Baishagirova Kh.Zh., Ermaganbetova S.K., Abylkasimova A.E "The Content and Methodological Features of Professionally Oriented Training of Engineering Students in Higher" published in the journal Higher Education for the Future, 2024, 11(1), pp.47–59, article by Kuttykozhaeva Sh.N., Kamalova G.B., Seitova T.Sh. “Pedagogist on қыту үрісінд кіткілік mathematics зүйесін қулдануға дийндиғы” was published in the journal Reports of the Kazakh Academy of Education, (EAGI), Nursultan, Kazakhstan, No. 4, 2020 and others.

Students of an accredited EP are provided with an educational and methodological complex (UMKD), which includes a training program (Syllabus), active handouts, lecture abstracts, practical (seminar) lesson plans, SRO and SROP plans, test assignments, semester assignments, exam questions, contains the grading policy and assessment criteria. To all of the above educational Students have access to teaching materials through the university's Platonus system. Independent work of the student with the teacher, designed to implement the advisory and supervisory function (monitoring of SRO), is carried out both individually and in a group. Individual work involves conducting an oral, written or combined survey, checking and defending individual assignments and test work.

The procedure for conducting ongoing monitoring of academic performance, intermediate and final certification of students at Sh. Ualikhanov KU is defined in the Policy for assessing the educational achievements of students (QMS STU 5.01.-2023, reg. No. 113 of March 30, 2023). This standard establishes uniform criteria for assessing the educational achievements of university students. The main forms of intermediate certification are: testing through the “PLATONUS” system, written work, oral examination, combined form. Examination materials are reviewed and approved at a department meeting, with each ticket containing at least three questions and the signature of the teacher who compiled the material. If the student does not agree with the assigned grade, he can apply for appeal. The appeal takes place the next day after the exam. The academic performance of students, the evaluation of research work is discussed once a semester at department meetings, and the results of the work done by students are heard at the scientific and technical council of the university.

The objectivity of assessing students' achievement of expected educational results is ensured through the following mechanisms: 1) assessment materials undergo preliminary examination at the graduating department, 2) examinations, depending on the form of administration, are accepted by independent experts or commissions, 3) knowledge assessment results are posted in electronic

systems and are available to students, 4) constant feedback is provided between the teacher and the student on issues of academic performance, 5) appeal procedures are provided for all types of assessment, additional opportunities for passing milestones controls and extension of the examination session if there are good reasons.

In order to teach student-centered learning technologies, the university pays great attention to the systematic improvement of teachers' qualifications, which ensures high quality education and translation of global and Kazakhstani experience. On the use of modern methods for assessing learning outcomes, teachers of the Department of Mathematics, Physics and Computer Science took advanced training courses at the International Center for Education and Scientific Information (Dusseldorf, Germany) (Kostangeldinova A.A., from July 7 to July 19, 2019, topic: "Innovative technologies in the higher education system: European experience of universities", 72 hours), IITU (Kostangeldinova A.A., Digital competencies in educational process, 2020, 72 hours), JSC National Center for Advanced Studies "Orleu" (Baishagirov Kh.Zh., Modern pedagogical technologies in vocational education, 2021, 72 hours).

In order to improve the quality of organization of the educational process at the university, internal monitoring of satisfaction with the quality of the university's work, surveys of students, employers, and teaching staff are carried out. The objectives of the survey are:

- expanding the participation of students in the management of the university, enhancing their civic position (providing feedback);
- providing teachers with the necessary information that allows them to purposefully improve certain aspects of their teaching activity and improve its quality;
- providing university management with information about various aspects of the teaching activities of teachers;
- development of measures aimed at improving the work of the university, increasing the efficiency of teaching work, and creating motivation for the teaching staff.

The "Teacher through the eyes of students" survey is conducted upon completion of the discipline, 2 times a year. All students participate in the survey. The survey is carried out by anonymously filling out questionnaires and is not controlled by the teacher.

Analytical part

NJSC Kokshetau University named after. Sh. Ualikhanov" ensures respect and attention to different groups of students and their needs, provides them with flexible learning paths, creates conditions for increasing the motivation and involvement of students in the educational process, developing their autonomy, and ensures consistency and objectivity in assessing learning outcomes. Assessment of educational achievements objectively reflects the achievement of the planned results of the educational program by each students. According to the accredited EP 8D01501 - "Methodology of scientific research in mathematics education", clear goals and expected learning outcomes are formulated for students (<https://shokan.edu.kz/ru/educational-programs/metodologiya-nauchnyh-issledovaniy-v-matematicheskoy-obrazovanii/>). Teachers of basic and core disciplines use active teaching methods, student-oriented and research approaches, problem-based learning, discussion method, reflection method, cases and others in their classes, which is reflected in the work programs of the disciplines (syllabuses), introduce the results of their own into the educational process of doctoral students scientific research, use original materials from electronic textbooks, teaching aids and monographs. Teachers of the Department of Mathematics, Physics and Computer Science regularly publish the results of their own research in the field of methods of teaching EP disciplines in various scientific journals, participate in joint international projects (for example, US-Kazakhstan Collaboration to Integrate STEM into Discrete Mathematics course for aspiring mathematics teachers), in scientific projects of grant financing of the Science Committee of the Ministry of Education and Science of the Republic of Kazakhstan (for example, IRN AP 09258554 "Creation of a network of Children's universities KAZCUNET"). To provide feedback on the use of various teaching methods and assess learning outcomes, the university regularly conducts surveys of students (for example, the "Teacher through the eyes of students" survey) at the end of studying the discipline 2 times a year. For

accredited EP, issues of academic performance and progress are regularly discussed at department meetings research work of students during the academic period. The university has developed mechanisms and procedures to ensure objectivity in assessing students' achievement of expected educational results. Evaluation criteria and methods are reflected in the work programs of disciplines (syllabuses).

At the same time, to ensure objective and effective assessment of students' academic achievements, teachers must regularly improve their skills in the field of innovative approaches to assessing learning outcomes. Evidence of advanced training of teachers in the field of innovative approaches to assessing learning outcomes is not presented. To improve the quality of student-centered education, the university encourages teaching staff to promote pedagogical innovations, ensures a strong connection between teaching, learning and research at all levels of education, creates opportunities for advanced training of teachers, which has a positive effect on the achievement of EP students' learning outcomes and ensuring their completeness formation.

At KU named after. Sh. Ualikhanov has formed a system for considering complaints from doctoral students, in the consideration of which, depending on the content of the complaint, advisors, the head of the department, the directorate, the vice-rector for academic affairs, and the rector are involved.

Strengths:

No strengths identified.

EEC recommendations:

- The head of EP 8D01501 - Methodology of scientific research in mathematics education needs to develop a plan for advanced training of teachers in the field of innovative approaches to assessing learning outcomes. Deadline - 1.09.2024.

EEC conclusions based on the criteria:

According to the standard “Student-centered learning, teaching and assessment of academic performance” OP 8D01501 - Methodology of scientific research in mathematics education has 10 satisfactory positions.

6.6. Standard "Students"

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

- *The management of the EP must determine the procedure for forming a contingent of students based on:*
 - *minimum requirements for applicants;*
 - *maximum group size when conducting seminars, practical, laboratory and studio classes;*
 - *forecasting the number of government grants;*
 - *analysis of available material, technical, information resources, human resources;*
 - *analysis of potential social conditions for students, incl. provision of places in a hostel.*

• *The management of the EP must demonstrate its readiness to conduct special adaptation and support programs for newly admitted and foreign students.* • *The public organization for recognizing the results of academic mobility of students, as well as the results of additional, formal and informal learning.*

• *The PA should cooperate with other educational organizations and national centers of the “European Network of National Information Centers for Academic Recognition and Mobility/National Academic Recognition Information Centers” ENIC/NARIC in order to ensure comparable recognition of qualifications.*

• *The educational institution must provide the opportunity for external and internal mobility of students of educational programs, as well as readiness to assist them in obtaining external grants for training.* • *The management of the EP must demonstrate its readiness to provide students with places of practice, facilitate the employment of graduates, and maintain contact with them.* • *The educational institution must provide for the possibility of providing graduates of the educational program with documents confirming the qualifications obtained, including the achieved learning outcomes, as well as the context, content and status of the education received and evidence of its completion.*

Evidence

The policies and procedures for admitting applicants to the university are consistent with the

mission, vision, and strategic goals of the university and are officially published on the university website (<https://shokan.edu.kz/ru/phd/>). The University Standard for Students (QMS STU 4.01-2020) defines the procedure and organization of the selection process for applicants to the NJSC Kokshetau University named after. Sh.Ualikhanov", the basic requirements for the formation of academic streams and groups of students after enrollment, the assignment of an identification code to each student, the traceability of the movement of the student population, the procedure for facilitating the employment of persons who have completed their studies at the university, the procedure for organizing admission to study in postgraduate education programs, the procedure transfer, reinstatement, expulsion and provision of academic leave to students of KU named after. Sh. Ualikhanov, ethical standards of behavior for students of KU named after. Sh. Ualikhanov, the procedure, conditions and amount of support for students at KU named after. Sh. Ualikhanov, the procedure for organizing the sending of university students to olympiads, conferences, sports competitions, other events, the procedure for organizing academic mobility at KU. Sh. Ualikhanov.

The most prepared and motivated applicants who have scored the required number of points based on test results are enrolled in doctoral studies. Applicants to doctoral studies provide international certificates confirming their knowledge of a foreign language in accordance with pan-European competences (standards) for foreign language proficiency. The entrance examination for groups of doctoral educational programs is conducted by the university independently. During the period of entrance examinations to doctoral studies, examination commissions are created at the university for groups of educational programs. Persons who score the highest on comprehensive testing and (or) the sum of entrance exams: at least 100 points are enrolled in training under an educational order on a competitive basis. Enrollment as doctoral students is carried out by the university admissions committee. The procedure for admission and enrollment, as well as other rules and procedures governing all periods of study are defined in the university standard STU 4.08-2022 - Doctoral studies and in the Academic Policy of the University (<https://drive.google.com/drive/folders/12fYRwIU-MbYULj84Z7zbqrY3mKq1vFj>). In the 2019-2020 academic year, 4 people were enrolled in the educational program 8D01501 – Methodology of scientific research in mathematics education, in the 2020-2021 academic year - 3 people, in the 2021-2022 academic year - 1 person, from the 2022-2023 academic year - 1 person. there was no training.

In accordance with the Academic Policy, the university conducts an orientation week for newly admitted students according to the academic calendar. The purpose of the orientation week is to get acquainted with the university, the objectives of the university, explain the principles of credit technology of education and prospects for future professional activities, register for disciplines within the time limits established by the academic calendar, as well as organizational work on registration in medical institutions of the city, military registration, etc. During the period during the orientation week, directors of institutes/higher schools organize meetings of students with heads of departments, teaching staff, advisors, introduce students with the structure of the institute/higher school, departments. Advisors and teaching staff conduct presentations of elective disciplines. In accordance with the Regulations on the adaptation of foreign students of Kokshetau University named after Sh. Ualikhanov (QMS P 4.09-2020), the principles and procedure for organizing work with foreign students are defined. Information about the university's adaptation activities for foreign students is posted on the website and social networks (for example, <https://shokan.edu.kz/ru/news/adaptaciya-inostrannyh-studentov-v-universitete-igraet-klyuchevuyu-rol-kak-dlya-samih-studentov-tak-i-dlya-uchebnogo-zavedeniya-v-celom/>).

To inform students and applicants about the requirements of the EP, the specifics of its implementation, and the procedure for implementing procedures for forming a contingent, career guidance work is carried out, and the university's information resources are used (<https://www.shokan.edu.kz/ru/phd/>), AIS Platonus system, the work of advisors is organized.

Scientific supervision of doctoral students is carried out by consultants of at least 2 people, one of whom is a scientist from a foreign university, whose place of work is a leading foreign scientific organization or OVPO, included in the first 1000 positions in international rankings or the first 200 positions in the relevant field (by Subject). Scientific consultants are approved by

decision of the Academic Council. A second domestic consultant for the doctoral dissertation is permitted. The doctoral student is trained on the basis of an individual work plan, which is drawn up under the guidance of scientific consultants. Individual work plans for doctoral students are approved by the decision of the scientific and technical council of the university and are stored at the graduating departments. An individual work plan for a doctoral student is drawn up for the entire period of study. The topic of the doctoral dissertation is determined during the first semester and approved by the decision of the Academic Council. The research work of doctoral students is organized by the graduating department of the university. At the Department of Mathematics, Physics, and Computer Science, a scientific and methodological seminar is held once every two months. The goals and objectives of the seminar include the formation of the necessary scientific and

research activities of competencies, exchange of experience in scientific, practical, research activities of scientific and pedagogical workers and university students, presentation and discussion of the results of current scientific research, assessment of promising directions, development of students' skills in conducting scientific discussion, oratory, reflection on the results of scientific research, and others. The work plan of the scientific and methodological seminar was signed by the head of the seminar, R. Gabdullin, and approved by the head of the department of mathematics, physics, and computer science. Students in EP 8D01501 – “Methodology of scientific research in mathematics education” undergo internships at the university.

The university has a “Career and Employment” department, which deals with organizing internships and promoting the employment of graduates. The department annually holds a job fair (<https://shokan.edu.kz/ru/news/yarmarka-vakansij> 2024/, <https://shokan.edu.kz/ru/news/yarmarka-vakansij-2/>). As part of the research and development work, the doctoral student's individual work plan for familiarization with innovative technologies and new types of production provides for mandatory scientific internship (no more than 2 times during the entire period of study) in scientific organizations and/or organizations of relevant industries or fields of activity, including abroad. The place of internship corresponds to the scientific direction of the educational program, the topic of the doctoral dissertation and the place of work of the foreign consultant.

At the end of each academic year, the doctoral student's annual report on the progress of the dissertation research is heard and approved at a meeting of the department (for example, minutes of the extended meeting of the Department of Mathematics, Physics, Computer Science No. 10 dated June 16, 2023 to discuss the dissertation work of doctoral students of the 3rd year of EP study 8D01501 - “Methodology of scientific research in mathematics education”). Based on the results of defending the annual report, a decision is made to certify or not certify the doctoral student and transfer him to the next year of study. Certification of the doctoral student's annual research results is carried out subject to certification of the semester research results and implementation of the approved foreign internship plan for the corresponding year of study. The procedure for conducting ongoing monitoring of academic performance, intermediate and final certification of university students is determined by the Policy for assessing the educational achievements of students (QMS STU 5.01 - 2023). The values of transfer points for the academic year are established by the University Academic Council annually. In accordance with the Regulations on operating expenses for financing the scientific activities of faculties (QMS P 4.12-2021)

(<https://drive.google.com/file/d/1fBC5Nzj3kKuR2yMCyTO5WMeDR0dse3pf/view>), The regulation on the procedure for stimulating the publication, publishing, patent activity of employees (QMS P 4.56-2024) at the university provides for a system of monetary incentives for the publication of scientific articles, publication monographs, obtaining patents, as well as for high results of research work of students, teaching staff and employees.

Procedures for the recognition of formal and non-formal education at a university are implemented on the basis of a comparison of learning outcomes and grades by analyzing international certificates of NIS final examinations or diploma supplements (transcripts), as well as on the basis of the “Rules for the recognition of learning outcomes obtained by adults through non-formal education provided by organizations included in the list of recognized organizations

providing non-formal education" (Order of the Minister of Education and Science of the Republic of Kazakhstan dated September 28, 2018 No. 508). In accordance with the Academic Policy, CU recognizes the results of formal education when enrolling graduates of Nazarbayev Intellectual Schools, colleges and universities in shortened training programs (recognition of learning results of previous formal education), when admitting foreign citizens to study, when transferring students from one university to another, when implementation of credit and academic mobility. Developed at the university

Regulations on the procedure for recognizing the results of non-formal education (QMS P 5.01-2020), regulating the procedure for recognizing the results of non-formal education by applicants at all levels of higher education at the university. The results of non-formal learning are recognized in the process of formal education at all levels (bachelor's, master's, doctoral) and as prerequisites for admission to university at all levels of education. Recognition of learning outcomes acquired through non-formal education is permitted for educational components included in the educational program. Recognition of results is carried out in the semester in which, according to the curriculum of a specific educational program, the development of an educational component is provided. The educational component can be re-credited as a component of the curriculum no later than the beginning of the next semester. To carry out the procedure for recognizing the results of non-formal education at the university, a permanent commission is created by order of the rector.

To guarantee objective recognition of higher education qualifications, periods of study and previous education, including the recognition of non-formal education, the university provides assistance to the Lisbon Recognition Convention, cooperates with the National Center for the Development of Higher Education, which is the executive body for the recognition and nostrification procedure in the Republic of Kazakhstan.

The university cooperates with more than 70 foreign universities, research centers and other scientific organizations in 33 countries

(<https://www.global.shokan.edu.kz/ru/%D0%B7%D0%B0%D1%80%D1%83%D0%B1%D0%B5%D0%B6%D0%BD%D1%8B%D0%B5-%D0%BF%D0%B0%D1%80%D1%82%D0%BD%D0%B5%D1%80%D1%8B/>). The main goal and priorities of international cooperation according to the Development Program of Kokshetau University named after Sh. Ualikhanov for 2023-2029 are the internationalization of scientific activities through the implementation of international scientific projects, joint publications with foreign scientists, participation of teachers and students in exchange programs, organization of foreign internships for students, aimed at the formation and consolidation of professional competencies in the qualifications obtained, collecting material for carrying out research (experimental research) work on topic of dissertation research.

In accordance with the Regulations on the organization of academic mobility (QMS P 4.07-2020), the resolution of practical issues relating to the acceptance of previous studies and the transfer of disciplines completed in other (including Kazakh) educational institutions, in agreement with the department, is provided by the coordinator of the academic mobility of the Department international cooperation. Announcements about the recruitment of interested students, teachers and staff of the University are posted on the website and official pages on the university's social networks and include all information regarding procedures, mandatory conditions, periods and criteria for selecting candidates, etc. without links to additional sources of information (<https://www.global.shokan.edu.kz/ru/>, <https://www.global.shokan.edu.kz/ru/vozmozhnosti-globalnogo-professionalnogo-razvitiya/>). The university has extensive experience in participating in international projects and partnerships, information about the implementation of which is posted on the university website (<https://www.global.shokan.edu.kz/ru/%D0%BF%D1%80%D0%BE%D0%B5%D0%BA%D1%82%D1%8B/>).

After defending the dissertation, the dissertation council assigns the student EP 8D01501 – “Methodology of Scientific Research in Mathematical Education” a qualification corresponding to the level of the SNK, namely Doctor of Philosophy PhD in the educational program 8D01501 – Methodology of Scientific Research in Mathematical Education. Students will complete their educational training

The program is issued a diploma of its own design with an appendix. Documents include

information about the achieved learning outcomes, context, content, status of the education received, evidence of its completion.

Analytical part

The university has published rules governing all periods of study, including admission, progress, recognition and certification.

Information on the list of required documents, list of EP, entrance exam programs, interview schedules, deadlines for receiving documents and testing deadlines, requirements for an international certificate confirming proficiency in a foreign language in accordance with pan-European competencies (standards) for proficiency in a foreign language, etc. posted on the official website of the university in the section “Admission to doctoral studies” (<https://www.shokan.edu.kz/ru/phd/>), on social networks. At the same time, the university website does not contain regulatory documents regulating the rules of admission and enrollment in doctoral studies, or links to them.

Brief information about doctoral educational programs and the features of their implementation are published on the university website (<https://www.shokan.edu.kz/ru/educational-programs/?level=doctorall>). Academic information, information about material, technical, information resources, teaching staff, social conditions for students, incl. The procedure for providing places in a dormitory is available to students through their personal account in the AIS Platonus and on the university website <https://www.shokan.edu.kz/ru/>.

The most prepared and motivated applicants who have scored the required number of points based on test results are enrolled in doctoral studies. In the 2019-2020 academic year, 4 people entered the educational program 8D01501 – Methodology of scientific research in mathematics education, in the 2020-2021 academic year - 3 people, in the 2021-2022 academic year - 1 person, from the 2022-2023 academic year they entered there was no training.

At the university, in accordance with the Academic Policy and the academic calendar, an orientation week is held for newly admitted students, the principles and procedure for organizing work with foreign students are determined, first-year students are provided with a “Guide Reference”, and supervisory hours are held.

The university has developed a procedure for recognizing previous learning outcomes, competencies acquired as part of academic mobility, and additional formal and informal learning. To guarantee objective recognition of higher education qualifications, periods of study and previous education, including the recognition of non-formal education, the university provides assistance to the Lisbon Recognition Convention, cooperates with the National Center for the Development of Higher Education, which is the executive body for the recognition and nostrification procedure in the Republic of Kazakhstan.

During the training process, doctoral students are provided with places of practice, have free access to educational, scientific, information resources of the university, take part in research work, have the opportunity to participate in external and internal academic mobility programs, and in competitions for scientific and educational grants.

The Career Center provides assistance in the employment of graduates, which regularly posts information on vacancies in companies and organizations and statistical data on the employment of graduates on its page. Communication with alumni is maintained through the Alumni Association and events held at the university with the participation of alumni.

The university provides graduates with its own documents confirming the qualifications obtained, including the achieved learning outcomes and the context of the educational process.

Strengths/best practices:

No strengths identified

EEC recommendations:

- The head of the educational program 8D01501 - Methodology of scientific research in mathematical education to develop a marketing plan to attract applicants for doctoral studies.

Deadline - 1.08.2024.

- Post on the university website regulatory documents governing the rules of admission and enrollment in doctoral studies, or links to them. Deadline - 1.08.2024.

EEC conclusions based on the criteria:

According to the “Students” standard OP 8D01501 - Methodology of scientific research in mathematics education has 12 satisfactory positions.

6.7. Standard “Faculty and teaching staff”

• *The PA must have an objective and transparent personnel policy, including in the context of EP, including recruitment, professional growth and development of personnel, ensuring the professional competence of all staff.*

• *The PO must demonstrate compliance of the staff potential of the teaching staff with the specifics of the EP.* • *The management of the EP must demonstrate awareness of responsibility for its employees and providing them with favorable working conditions.*

• *The leadership of the EP must demonstrate the change in the role of the teacher in connection with the transition to student-centered learning.*

• *The PA must determine the contribution of the teaching staff of the EP to the implementation of the development strategy of the PA and other strategic documents.*

• *The educational institution must provide opportunities for career growth and professional development of teaching staff of the EP.*

• *The management of the EP must demonstrate a readiness to involve practitioners from relevant industries in teaching.*

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

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

Evidence

The University pays great attention to the selection and training of personnel. The documented procedure Personnel Management (QMS DP 05-2020) (<https://drive.google.com/file/d/1OjmKGfDRWjRRGB6wwNtcSq92C-zoHvgI/view>) establishes the procedure for personnel management in the quality management system of NJSC Kokshetau University named after. Sh. Ualikhanov" and applies to all employees of the University, is used by all structural divisions and is part of the documentation of the quality management system. QMS DP 05-2020 defines personnel management tools and establishes requirements for determining the competence required for personnel performing work that affects the quality of educational services; providing preparations or taking other actions to meet these needs; assessing the effectiveness of the measures taken; ensuring staff awareness of the relevance and importance of their activities and contribution to achieving quality goals; Maintaining appropriate records of personnel education, training, skills and experience. Selection and placement of personnel is carried out through personnel planning with taking into account the correspondence of the scope of tasks, powers and responsibilities to the person's capabilities, professional competence, practical achievements, and individual qualities. The selection of teaching staff is carried out through a competition in accordance with the procedure for competitive replacement of teaching staff positions. Announcements on the availability of teaching staff positions and requirements for employees are published on the university website (<https://www.shokan.edu.kz/ru/departments/otdel-kadrov/konkurs-na-zameshenie-vakantnyh-dolzhnostej-pps-na-2022-2023-g/>). The strategy for searching and hiring employees for full-time vacancies complies with the principles of transparency and equality, which is ensured by a competitive basis for filling vacant teaching positions, the procedure for considering candidates and confirming positions, the availability of employment contracts, and assessing the quality of performance of labor duties during the probationary period based on approved Typical qualification characteristics of positions of teaching staff and persons equivalent to them (<https://adilet.zan.kz/rus/docs/V090005750>). Transparency of personnel procedures is ensured by conducting certification of teaching staff and hearing their reports on all positions of the individual plan and announcing a reasoned conclusion of the department with a recommendation for a

competition and (or) extension of the employment contract.

The university has developed qualification requirements for each of the public access positions (<https://drive.google.com/drive/folders/1TPUzIUrQWuNrl0ZpsZuy4jq2AtS1Fp1t?usp=sharing>), a new qualification system of positions was introduced (professor, associate professor, assistant professor, senior lecturer, assistant lecturer) in accordance with international standards, the status of teacher was introduced researcher. In accordance with the Regulations on the status of a teacher-researcher at Kokshetau University. Sh. Ualikhanov status as a teacher-researcher at KU. Sh. Ualikhanov was introduced as a measure to support university scientists involved in the implementation of scientific projects, reduce their teaching load, and increase the level of scientific research, as well as to increase the university's performance in terms of the number of applications submitted to scientific competitions of the Global Fund, PCF and commercial contract projects. When selecting personnel for the educational process at the university, the presence of an academic degree of Doctor/Candidate of Sciences or an academic/academic degree of a Doctor of Science or a Master's degree, compliance of basic education or postgraduate education or an academic/academic degree with the disciplines taught, experience in teaching and scientific work (publications in journals) are welcomed. , recommended by KOKSON, in the cited information databases), the presence of certificates or other documents on advanced training for the last 3 years in accordance with the profile of the taught disciplines, for those teaching in English, compliance with the level of knowledge of the English language at level B2 (Intermediate), confirmed by an international certificate, is welcomed.

Planning of personnel requirements is carried out by drawing up a draft staffing table for the coming academic year or adding to it by the head of the planning and economic department based on requests for personnel from the heads of structural divisions. Applications from structural divisions of the university regarding the need for personnel or for the training of their personnel for the next calendar year are submitted to the economic planning department three months before the start of the academic year. If there is a need for additional personnel, the heads of structural divisions prepare a memo addressed to the rector, in which they justify the need to introduce a job unit into the staffing table, describe the functions and responsibilities performed, fill out an application for personnel indicating clear requirements for the position and, together with the memo, submit it to the rector for approval. After approval, the memo with the application is transferred to the economic planning department.

The university has a system of advanced training, professional and personal development of teaching staff and employees, which implies: self-education and self-improvement, study, taking advanced training courses, professional retraining and internship. Training is carried out with the aim of increasing professional competence, expanding the profile of professional activities, as well as for the purpose of preparing staff to solve the problems facing the university. For example, the Institute for Advanced Training and Retraining of Personnel at the Sh. Ualikhanov State University provided teaching staff of an accredited EP with the opportunity to take advanced training courses such as Variational principles of mechanics and their relationship with the theory of extremal problems in mathematics, Modern pedagogical technologies in vocational education, Digital services in the educational process, Computer and digital literacy. Teachers of the Department of Mathematics, Physics and Computer Science have completed advanced training courses in the Republic of Kazakhstan and in near and far abroad countries (for example, Damekova S.K. - advanced training of teaching staff of the Republic of Kazakhstan, 232 hours, JSC "NISH" Center for Pedagogical Excellence, April, 2019. , certificate BZh No. 113907).

In order to develop, retain and promote talented and qualified employees, the university creates and maintains a personnel reserve system. To strengthen the connection between education and scientific research, the university encourages the scientific activities of academic staff by:

- implementation of a system of motivation for scientific activities and constant information about scientific events (Regulations on operating expenses for financing scientific activities of faculties, QMS P 4.12-2021, <https://drive.google.com/file/d/1fBC5Nzj3kKuR2yMCyTO5WMeDR0dse3pf/view>, until 2020 the university had a KPI system - a system of measurable indicators of achieved teaching staff

results);

- promoting the commercialization of scientific research results; - providing the opportunity to use international scientific databases, electronic scientific journals;
- facilitating the presentation of scientific positions on scientific platforms, including participation in scientific conferences and competitions, publications in journals; - planning and monitoring the effectiveness of research activities.

For example, the following teachers of the Department of Mathematics, Physics and Informatics were encouraged to publish articles in Scopus: Shuyushbaeva N.N., Kutykozhaeva Sh.N., Damekova S.K., Kostangeldinova A.A., Gabdullin R.S., Kasenova B.S. .R., Ataev E.K., Aidarkhanova A.K., Saparbekova A.A.

The university has created conditions for the introduction of innovative teaching methods and the use of advanced teaching technologies. For this purpose, at KU named after Sh.Ualikhanov, teachers are given the opportunity to improve their skills in the field of innovative methods and technologies in Kazakhstan and foreign organizations, conditions are created for disseminating experience in introducing new methods and technologies through seminars and master classes, the educational process is equipped with modern equipment and software, monitoring is carried out effectiveness and efficiency of applying innovations in the educational process and using active learning methods.

Teaching staff salaries are regularly increased. For example, the salary of a professor in the 2019-2020 academic year was 119,454 tenge, in the 2020-2021 academic year - 141,576 tenge, in the 2021-2022 academic year and in the 2022-2023 academic year - 250,000 tenge, in the 2023-2024 academic year - 300000 tenge

Departments are given the right to implement the principle of academic freedom, in which the inalienable freedoms of the university prevail - to determine for themselves according to academic standards and developed educational programs, who can teach, what can be taught, by what methods and who can be allowed to teach.

Based on the staffing table, calculation of hours and taking into account the annual work plan of the department, the teaching staff creates an individual teacher plan (IPP). An individual plan is drawn up annually at the beginning of the academic year and includes the following sections: educational work, methodological work, research work, organizational social work, which is carried out during the academic year personally by the teacher. The individual plan is approved by the first vice-rector for academic and educational methodological work and is considered the main document regulating the work of a teacher in a full-time position. Twice a year, according to semi-annual and annual reports on IP, an analysis of the teacher's work in all sections of the plan is carried out, an assessment is made of the implementation of the individual plan for the academic year, deviations and their causes are identified. The teaching load of the university teaching staff is regularly reviewed. For example, the average annual load for a Doctor of Science in the 2019-2020 academic year and 2020-2021 academic year was 38 credits (570 hours), a Candidate of Science/PhD - 50 credits (750 hours). In the 2021-2022 academic year and in the 2022-2023 academic year, the teaching load for all categories of teaching staff was 600 hours.

Each teacher must know and be able to justify the place of his discipline in the curriculum, its relationship with previous and subsequent disciplines, and understand the role of the discipline in the formation of a specialist.

According to the accredited EP 8D01501 - "Methodology in scientific research in mathematics education", doctoral students are trained by 2 doctors of science, 3 candidates of science, 1 PhD. The degree of teaching staff in the context of the accredited EP is 100%. All teachers have basic education. The average age of teaching staff participating in the implementation of EP 8D01501 – "Methodology of scientific research in mathematics education" is 58 years. The staffing level is 100%. Among the teachers of the Department of Mathematics, Physics and Computer Science, the holders of the state grant "Best University Teacher" are N.N. Shuyushbaeva. (2017), Kostangeldinova A.A. (2018), Damekova S.K. (2019).

To improve the quality of personnel training in the accredited EP, foreign specialists were invited: V.A. Dalinger, Russia, Omsk. Omsk State Pedagogical University, lectures on the

discipline “Methodology of scientific research and methods of teaching and education in the field of mathematics” (30 hours), “Psychological-pedagogical and didactic-methodological foundations of teaching mathematics at a university” (30 hours), visit dates: 11/18/2019 g-29.11.2019; Dalinger V.A., Russia, Omsk. Omsk State Pedagogical University, Scientific consulting for doctoral students Kairdenova S.S., Ospanova E.B., visit dates: 09.2021 - 06.2021; Lyublinskaya I.E., Teachers College University, Columbia (New York, USA), lectures in the disciplines “Quantitative and qualitative analysis in educational research”, “Theoretical foundations for technology integration into mathematics teaching and learning”, visit dates: 02.10.2023-07.10.2023

The performance of teaching staff duties, monitoring the quality and effectiveness of training, evaluation of scientific work, monitoring the implementation of department plans and individual plans of teaching staff are controlled by the heads of departments, the director of the institute, the department of academic affairs and the Department of Science and International Cooperation. The Department of Mathematics, Physics and Computer Science has an internal control system. For this purpose, a schedule of mutual attendance of classes by semester of the academic year is drawn up, a schedule of open classes by teachers of the department (for example, minutes of the meeting of the Council on Academic Quality of the Pedagogical Institute No. 1 dated 08.28.2023), the results of which are discussed at meetings of the department and recorded in the minutes.

Teachers of the department improve educational and methodological complexes on based on the National Qualifications Framework, taking into account the Dublin descriptors and the European Qualifications Framework, annually prepare and publish teaching aids and educational recommendations for conducting all types of classes. For the period 2019-2024, the teaching staff of the Department of Mathematics, Physics and Informatics published 14 textbooks, 3 electronic textbooks, 8 educational and methodological complexes, 3 methodological instructions, textbooks for university students with the assignment of the stamp of UMS RUMS on the basis of KazNPU named after . Abai – 2.

Teachers in EP 8D01501 - “Methodology in scientific research in mathematics education” disseminate the existing best practices in research and methodological activities among universities of the Republic of Kazakhstan and foreign partners through seminars, conferences and the implementation of scientific projects. Teachers of EP and students of EP 8D01501 are involved in project activities. (for example, IRN AP 09258554 “Creation of a network of Children’s Universities KAZCUNET” (project manager - Damekova S.K.), grant funding for scientists on scientific and (or) scientific and technical projects for 2021-2023, Science Committee of the Ministry of Education and Science of the Republic of Kazakhstan, amount of funding - 57,400,401.20 tenge (<https://shokan.edu.kz/ru/departments/departament-nauki-i-kommercializacii-tehnologii-realizaciya-nauchnyh-proektov/4-irnap09258554sozdanie-seti-detskih-universitetov-kazsunet-damekova-saule-kajrollovna/>, <https://www.facebook.com/100038246498037/posts/pfbid04wGtsP5qbxuxAtCdaYMvCEqaEj9A5x4ibr6ST2LMLvG9RQB3hdQcfk11WMzhkcDDI/?app=fbl>). Faculty from the Department of Mathematics, Physics and Computer Science are working closely with Nazarbayev University on a study: improving the quality of teacher education in Kazakhstan, taking into account the interests of key stakeholders to develop innovation and research capacity (<https://www.global.shokan.edu.kz/ru/%D0%BD%D0%BE%D0%B2%D0%BE%D1%81%D1%82%D0%B8/6-sotrudnikov-nazarbaev-universiteta-pribyli-v-ualikhanov-university-v-ramkah-obmena-opytom-sredi-kazahstanskih-vuzov/?query=%D0%BD%D0%B0%D0%B7%D0%B0%D1%80%D0%B1%D0%B0%D0%B5%D0%B2>).

Every year, teachers of the department publish articles in various journals, international publications from near and far abroad (the department has reports on research work). Based on the results of research for the period from the 2019-2022 academic year to the 2023-2024 academic year, the teaching staff of the Department of Mathematics, Physics and Informatics published 14 articles in international scientific publications Scopus, in international scientific publications WebofScience, ThomsonReuters - 12, in journals recommended by KKSNOV - 14 articles, monographs - 1. 4 copyright certificates and 5 patents.

The university annually conducts a survey of students on the university website in order to

identify their opinions on the quality of teaching and educational activities of teachers “The teacher through the eyes of students,” as well as a survey of teachers on their satisfaction with the educational process. The university portal provides information about teachers of the departments of mathematics, physics and computer science. Each teacher has a portfolio that contains information about qualifications, advanced training, lists of main works, a list of disciplines read (<https://shokan.edu.kz/ru/schools/pedagogical-institute/kafedra-matematiki-fiziki-i-informatiki/>).

The management of the EP implements the educational program based on the synthesis of educational and research activities to improve the scientific content of educational programs and reveal the research potential of the student's personality (<https://www.facebook.com/100038246498037/posts/pfbid0cpK18kW3pwa6Essg8XjL5eFAaDJRpsjeoDRWW3SubXfkKTUsecGrip5W4T8xJmZel/?app=fbl>). To strengthen the connection between education and scientific research, the university encourages the scientific activities of academic staff by creating and functioning of scientific schools and teams (<https://www.facebook.com/100038246498037/posts/pfbid02uuPi3yTjC318ozkS9Yy4CRYGFW6LEvQ93TyZcZ2xeEN1iZ1v73NnfJwYH9ZG1BBdl/?app=fbl>).

Analytical part

The University pursues an objective and transparent policy in the context of educational programs, including recruitment, professional growth and development of personnel, ensuring the professional competence of all staff. In order to ensure openness and transparency of the competitive selection for vacant positions, announcements and requirements for employees are posted on the university website (<https://www.shokan.edu.kz/ru/news/vakansii/?query=%D0%92%D0%B0%D0%BA%D0%B0%D0%BD%D1%81%D0%B8%D0%B8>, <https://www.shokan.edu.kz/ru/departments/otdel-kadrov/konkurs-na-zameshenie-vakantnyh-dolzhnostej-pps-na-2022-2023-g/>). The university has developed qualification requirements for each of the positions with shared access (<https://drive.google.com/drive/folders/1TPUzIUrQWuNrl0ZpsZuy4jq2AtS1Fp1t?usp=sharing>), introduced a new qualification system for positions (professor, associate professor, assistant professor, senior lecturer, assistant lecturer) in accordance with international standards, the status has been introduced teacher-researcher as a measure of support for university scientists involved in the implementation of scientific projects.

The numerical composition of teaching staff is planned based on the needs of the educational process, the standard teaching load per teacher and the student population. According to the accredited EP 8D01501 - “Methodology in scientific research in mathematics education”, the degree of teaching staff in the context of the accredited EP is 100%. All teachers have basic education. The average age of teaching staff participating in the implementation of the EP is 58 years. In accordance with this, the management of EP 8D01501 needs to systematize the work of attracting young specialists with a PhD degree to the department and employing doctoral graduates in relevant educational programs.

The university creates conditions for career growth, operates a system of advanced training in Kazakhstan and foreign organizations, including in the field of innovative methods and technologies, which is confirmed by relevant certificates, creates conditions for the professional and personal development of teaching staff and employees, dissemination of experience in introducing new methods and technologies within the framework of seminars and master classes. At the same time, a survey of students was conducted as part of the visit of the external expert commission of the IAAR to Kokshetau University named after Sh. Ualikhanov showed that 6 out of 52 students (11.5%) partially agree that the teacher presents the material in an interesting way, 5 out of 52 students (9.6%) partially agree that the teacher uses effective teaching methods. In accordance with this, in the work programs of disciplines (syllabus), it is necessary to update the

teaching methods used and ensure control over their implementation through the institution of mutual visits.

In order to develop, retain and promote talented and qualified employees, the university creates and maintains a personnel reserve system. To strengthen the connection between education and scientific research, the university encourages scientific activities of teaching staff.

The educational process is equipped with modern equipment and software, the effectiveness and efficiency of the application of innovations and the use of active learning methods is monitored.

Teaching staff salary increases regularly.

Foreign teachers and practicing specialists from manufacturing enterprises in the city and region are regularly invited to give lectures. Teachers, in accordance with job descriptions, participate in the implementation of educational, educational and methodological, research and scientific methodological work, which is confirmed by relevant documents and reports.

Strengths:

No strengths identified.

EEC recommendations:

- The head of the educational program 8D01501 – “Methodology in scientific research in mathematics education” to develop an action plan to attract young specialists with a PhD degree to the department and employ doctoral graduates. Deadline: 08/31/2024.

- In the work programs of disciplines (syllabus), it is necessary to update the teaching methods used and ensure control over their implementation through the institute of mutual visits. Deadline: 08/31/2024.

EEC conclusions based on the criteria:

According to the “Faculty and Teaching Staff” standard OP 8D01501 - Methodology of scientific research in mathematics education has 9 satisfactory positions.

6.8. Standard “Educational Resources and Student Support Systems” • *The educational institution must guarantee a sufficient number of learning resources and student support services to ensure the achievement of the objectives of the educational institution.*

• *The educational institution 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 educational institutions (adults, working people, foreign students, as well as students with disabilities).*

• *EP management must demonstrate the availability of procedures to support various groups of students, including information and consultation.*

• *The management of the EP must demonstrate the compliance of information resources with the specifics of the EP, including:*

• *technological support for students and teaching staff (for example, 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 research results, graduation works, dissertations for plagiarism;*

• *access to educational Internet resources;*

• *functioning of WI-FI on the territory of the educational organization.*

• *OO demonstrates planning for providing EP with educational equipment and software similar to those used in the relevant sectors of the economy.*

Evidence

The University ensures the availability of sufficient, accessible and relevant educational resources and student support services. When distributing, planning and providing learning resources, the university takes into account the needs of different groups of students. The university infrastructure includes 5 academic buildings, 2 dormitories, 3 Student Houses, a House of Scientists with 26 apartments, 2 sports and recreation complexes, 2 gyms and outdoor sports

grounds near 2 academic buildings. The total area of buildings and structures of the university is 62 659.7 m². All university buildings comply with sanitary standards and fire safety requirements. The area of the university's classrooms is 18,875.5 m². In the Zerenda resort area (Akmola region, Zerenda village) there is a sports and recreation camp "Tulpar", owned by Kokshetau University. Sh. Ualikhanov. The total area of the land plot is 2.46 hectares. The educational buildings and dormitories have a student nutrition center, canteens and buffets for 272 seats with a total area of 869.7 m². For accommodation of nonresident students, the university has dormitories and student houses with a total area of 19,178.9 m². The provision of student accommodation in dormitories is 1,365 beds. For

organization of free medical care at the university there are 6 medical centers and a multidisciplinary medical and health complex "Arasan", the total area of which is 169.91 m². The university has an editorial and publishing department with a capacity of 11,000 printed sheets per year. The educational process uses educational and laboratory facilities, classrooms, and lecture halls equipped with modern technology. Furniture for classrooms, offices and dormitories is manufactured by the university's furniture workshop. To ensure an adequate level of security and safety of material assets, the university is equipped with an access control system (ACS), a video surveillance system, including 327 cameras. The university has sports sections and physical education and health groups.

An important factor in ensuring the quality of education and guaranteeing the sustainable development of the university is the constant improvement of its entire infrastructure. For example, during the period from 2019 to 2023, the volume of financial resources allocated for the purchase of computers increased approximately 2.48 times (from 17482.2 thousand tenge in 2019 to 43395.2 thousand tenge in 2023), the volume of financial resources , allocated to the Internet, website maintenance and information network increased approximately 2.26 times (from 8329 thousand tenge in 2019 to 18846.3 thousand tenge in 2023). At the same time, the volume of financial resources allocated for the purchase of laboratory equipment decreased by 6.6 times (from 45,342 thousand tenge in 2019 to 6,845.7 thousand tenge in 2023).

The plan for the acquisition of material resources is drawn up on the basis of requests from structural divisions and the financial condition of the university. The use of financial and material resources is discussed annually at meetings of the University Academic Council, where, in accordance with the work plan of the Management Board, the chief accountant makes a report. When distributing, planning and providing educational resources, the university takes into account the needs of various groups of students: all students are provided with round-the-clock access to information resources and an electronic library, the university infrastructure and the structure of information systems are designed taking into account the needs of students with disabilities, preparatory courses are held for foreign students On the basis of the department of pre-university training, an adaptation program is available for foreign students. In accordance with the Social Policy (QMS P 1.08-2022) (https://drive.google.com/file/d/1aFBxRcLs9Y-7eA6RD_PCFLunrblkfeoW/view), the university provides benefits for tuition fees and dormitory accommodation for socially vulnerable categories of students , providing preferential travel for nonresident students 2 times a year, grants are provided rector

Academic support for students is provided by the admissions committee, the Registrar's office, the career and employment center, the department of postgraduate education, the department of international cooperation, and the library.

To organize the acceptance of documents applicants for study in educational programs of higher and postgraduate education, conducting UNT, entrance exams and enrollment in the composition of students at the university, an Admissions Committee is organized, the work of which is regulated by the Regulations on the Admissions Committee (QMS P 1.06-2020, <https://drive.google.com/file/d/1wF386R-6KVcEtfcCLYwTKGt7d2AMkgIs/view>). During the admissions campaign, the admissions committee monitors compliance with the availability of information for applicants on the official website of the university, during the academic year it develops the Rules for admission to the university for the next academic year, and during the admissions campaign it organizes the admission of persons entering educational

programs of higher and postgraduate education , organizes the production of passes for comprehensive testing, organizes the acceptance of documents from persons wishing to take part in the competition for a state educational grant of the Republic of Kazakhstan, prepares an annual report on recruitment, conducting career guidance work, which is submitted for consideration to the Academic Council.

The Registrar's Office is an academic service that registers the entire history of a student's educational achievements and ensures the organization of all types of knowledge control and the calculation of students' academic ratings (<https://shokan.edu.kz/ru/departments/ofis-registratora/>). The Registrar's Office is handling organizing the educational process on credit technology of education, monitoring the quality of students' knowledge, taking into account the movement of the student population and preparing statistical reporting. The Registrar's Office performs the functions of forming individual plans for students, providing assistance in choosing a learning path and mastering the educational path during the period of study, maintaining the history of students' educational achievements throughout the entire period of study, which is reflected in the transcript, organizing and conducting intermediate certification, calculating the academic rating of students (annual registrar of transferable GPA), organizing testing of students, preparing and approving student movement orders, issuing duplicates of lost diplomas and applications, certificates from the place of study, transcripts, managing the process of compiling academic records for all faculties, coordinating the grading policy, registering and accounting for the movement of students at the university, filling out state reporting forms on academic performance and movement of students (3 NC), providing assistance in preparation of documents for the award of educational grants released in the process of obtaining higher and postgraduate education, scholarships established by the President of the Republic of Kazakhstan, filling out all indicators of students in the IS NOBD, expansion and improvement of the information base on all positions of the university's educational and methodological activities, and assistance in improving the provision of educational services at the university.

The Career and Employment Center provides assistance in building the career trajectory of university students and in the employment of graduates (<https://shokan.edu.kz/ru/departments/career-center/>). The center's staff provide assistance to students during professional practice, conduct daily consultations (room No. 210), assist in writing a resume and preparing for interviews, organize company presentations, guest lectures, master classes, job fairs, Mock Interview ((<https://shokan.edu.kz/ru/news/yarmarka-vakansij-2024/>, <https://shokan.edu.kz/ru/news/yarmarka-vakansij-2/>). The Career Center page contains announcements of vacancies in various companies and organizations, information on the employment of graduates (<https://shokan.edu.kz/ru/departments/career-center/>).

The International Cooperation Department coordinates issues related to establishing international connections and business partnerships in the educational and scientific space, organizing academic mobility of students and teachers, attracting foreign students, developing joint educational and research projects with leading foreign universities, developing joint educational programs with the issuance of double diplomas (<https://www.global.shokan.edu.kz/ru/>). Students have the opportunity to receive full information about internal and external academic mobility programs on the university website (<https://www.global.shokan.edu.kz/ru/>) and on social networks (<http://surl.li/sadzd>, <https://www.instagram.com/shoqanglobal>), familiarize yourself with the list of partner universities, requirements for program participants, list of required documents and deadlines for submitting documents. The main issues of organizing academic mobility are regulated by the Regulations “On the organization of academic mobility” QMS P4.07-2020 (<https://drive.google.com/drive/folders/12fYRwlU-MbYULj84Z7zbqrY3mKq1vFj>).

On questions of the educational process, students can contact the advisor, who provides assistance in choosing a learning path (formation of an individual curriculum) and mastering the educational program during the period of study, the group supervisor, the head of the graduating department, the directorate of the institute (<https://shokan.edu.kz/ru/schools/>), to the registrar's office service (<https://shokan.edu.kz/ru/departments/ofis-registratora/>). All information on the

organization of the educational process is included in the guidebook (https://shokan.edu.kz/documents/959/sprav-putevod_1-go_kursa_rus.pdf), academic calendar. If a student disagrees with the exam results, he has the opportunity to file an appeal.

The library annually creates a map of the EP's supply of educational, educational, methodological and scientific literature, updating the book collection taking into account the standards - 10 years for the natural, technical and agricultural sciences, 5 years for the humanities. The educational literature fund is a collection of domestic and foreign publications on all cycles of disciplines studied at the university, educational and methodological instructions. In the 2023-2024 academic year, the total collection of the scientific library is 739,783 items. Of these: educational literature – 517,862; scientific literature – 102,119; UML and other literature - 119,802.

The KU library uses the Apache web server, an interpreter of PHP code into ready-made scripts, MySQL databases, the Openfire Jabber server, an FTP server that ensures the availability of all catalogs and e-books for external libraries, the JAWS program with an ultraportable Braille display Focus 14 Blue with Bluetooth wireless technology for persons with special educational needs, an IIS server that provides operation of the KABIS web module (<https://kabis.bu.edu.kz/Default.asp?sign=1>) (providing general access to library catalogs). Access to electronic resources is possible through the KU library website

(<https://shokan.edu.kz/ru/departments/library/>) and is carried out through the KABIS program.

Access to the electronic library is provided through the university website

(<https://elib.kz/ru/accounts/login/?next=https%3A//elib.kz/ru/search/>) and to the portal of

multimedia textbooks (<https://www.mbook.kz/ru/index/>) Publishing house "Epigraph". On

The library's website contains a catalog of works by university teachers. The library's electronic

catalog contains information about library publications on traditional and digital media. The

catalog contains over 5,000 records of digitized scientific and educational literature, including

those consisting of the works of the university teaching staff. Electronic resources are accessible

remotely from the university website, from any computer with Internet access. The library's

“virtual reference service” makes newsletters. The InstagramLibraryUalikhanovUniversity page

(https://www.instagram.com/library_ualikhanov_university?igsh=bmUxb3pzZ3d6aG1h)

publishes news about library resources and upcoming events. Basic information and important

announcements are also available on the official website of the university

(<https://www.shokan.edu.kz/ru/departments/library/>), providing students and staff with

comprehensive access to up-to-date information. In the library reading rooms in the areas of

student training there is a wide range of periodicals and magazines, for example, Introduction to Science, Scientific Projects,

Design ideas, Densaulyk zhane dene tǒrbiesi/ health and physical education, Modern education,

Mathematics/Informatics/Physics and many others. The university has organized access to

external educational resources: 1. KAZNEB (Kazakhstan National Electronic Library electronic

state national fund, <https://kazneb.kz/>). Language – Kazakh, Russian, English (agreement dated April 20, 2012);

2. Information system “PARAGRAPH”, <https://prg.kz/>;

3. RIEB (Republican Interuniversity Electronic Library of Kazakhstan, <http://rmebrk.kz/>) (agreement dated 04/05/2011);

4. Polpred.com – review of the media: articles, publications, analytics; English-language sites: databases of electronic resources of the companies THOMSONREUTERS (agreement with NC NTI dated 01/06/2012), Springer (agreement dated 12/06/2011) and Elsevier;

5. Automated library and information system MegaPro, [https://library.aues.kz/MegaPro/web](https://library.aues.kz/MegaPro/web;);

6. Digital library "Aknurpress", <https://aknurpress.kz/login>.

In order to identify satisfaction with the availability of resources and the quality of the educational process, the department of strategic planning, accreditation and quality management of Sh. Ualikhanov University monitors the satisfaction of students and staff with the material and technical equipment of the university. The level of accessibility of library resources was assessed as quite sufficient by 96%. The equipment of the library and the composition of the library

collections satisfy 74% of respondents.

Social support for students is provided by the Youth Policy Department, the first aid station, and the Psychologist's Blog (https://shokan.edu.kz/ru/student-life/psychologist_blog/). One of the types of social support for certain categories of students is the provision of benefits on tuition fees. The university website has a section on the rector's blog (https://shokan.edu.kz/ru/rector_message/). To accommodate out-of-town doctoral students, the university has dormitories (<https://shokan.edu.kz/ru/student-life/obshezhitiya/>), Student Houses.

The university uses licensed PaloAlto software to ensure information security and information protection. Specialists from the Department of Computer Technologies and Telecommunications assist staff and teachers in improving their digital skills. In order to optimize document flow between departmental organizations and institutions of the Ministry of Science and Higher Education of the Republic of Kazakhstan, a transition was made to a unified electronic cloud document flow system SalemOffice - AIC "Sirius" SOMNIUM LLP, subordinate to the Ministry of Education and Science of the Republic of Kazakhstan Joint Stock Company "National Information Technologies".

Architecture of AIS Platonus (<http://platonus.kgu.kz/>) is adapted to all requirements related to the organization and implementation of the educational process, ensures high productivity, data quality, and access security. The university has developed user documentation for installation, configuration and use of the system. Documentation, FAQs and other educational resources teaching materials are posted on the university website.

Through the educational portal, students and teachers have access to personal (virtual) offices, access to automated workstations of specialists (registrars) who manage and support the educational process. The personal account is designed to provide students with up-to-date information about educational achievements, the academic calendar, the schedule of classes, examination sessions, and consultations. Using your personal account, an individual learning path is formed, distance learning is conducted, testing, access to educational and methodological materials in the specialty and disciplines. In your personal account there are means of communication with fellow students in your group, institute, curator and teachers of the department. AIS Platonus supports Kazakh, Russian, and English languages. Teachers place electronic learning tools in virtual classrooms. Through AIS Platonus, individual student training plans are available, as well as all the necessary educational and methodological support. This system is also convenient for students with disabilities and special educational needs as it allows for an individual approach to all types of classes.

At the university, out of 929 personal computers, 322 are used in the educational process. All computers are connected by a common local network. Each building is equipped with high-speed Internet (500 Mbit/s). The operation of the university system is ensured by 12 servers (<https://shokan.edu.kz/ru/>, <https://platonus.kgu.kz/>, 1C:accounting, PERCoWEB and others).

In the educational process according to EP 8D01501 - Methodology of scientific research in mathematics education, information technologies and application software packages are used to improve the skills of using modern information technologies in solving professional problems. Among the software products and educational platforms used by doctoral students are Labster, ARCGIS, GeoGebra, living geometry (Geometer's SketchPad), Khan Academy, graphic editor "ADOBE ILLUSTRATOR", Skillspace.ru/online-school, Coursera, Teach-in, Online Test Pad, BilimLand, Liveworksheets.com, Whiteboard.fe and others. The University has been granted a license to use the Academic Program for 50 study places for 3 years. The Educational Academic Departmental Term License provides the opportunity to purchase essential Esri technologies for teaching and learning. The academic program includes all major components of the ArcGIS platform, including ArcGIS Enterprise, ArcGIS Pro, ArcGIS Desktop, ArcGIS Online, and many web and mobile applications. The provision of educational, educational, methodological and scientific literature for the 2023-2024 academic year per student according to EP 8D01501 is 5.5. Research work of doctoral students is one of the important components of the educational program. At the Department of Mathematics, Physics and Computer Science, 517 and 521 classrooms, which have the necessary set of tools, are used to conduct research work for doctoral students.

The procedure for checking for borrowing written works of students, as well as educational

and methodological literature, monographs, articles, reports on scientific research published by structural divisions and employees of KU named after Sh. Ualikhanov is regulated by the Regulations on checking written works for borrowing (QMS P 5.03-2021) (<https://drive.google.com/file/d/1XQbz5iS9AN8F11AMaAhOepsiTdIO-OCM/view>). The university has established minimum requirements for the originality of written work: 70% – thesis (project); 75% – master's thesis (project); 50% – course work (project) and other written works of students; 70% – educational and methodological literature (educational, educational and methodological manuals, guidelines, recommendations, workshop, etc.) – for publication in CU; 85% – publication for assignment of the stamp of RUMS, UMO; 50% – educational and methodological complex of disciplines; 77% – monograph; 77% – article, scientific research report. To conduct an examination in order to determine the originality of written works, the “Strikeplagiarism” and Antiplagiat.ru systems are used.” The examination of the results is checked by the QMS, the results and certificates issued for originality are strictly controlled. To encourage students to engage in research work, the university provides an incentive system in the form of bonuses.

In general, comfortable conditions have been created for the implementation of the EP, including training, extracurricular activities and teaching activities on the territory of the university.

The appropriate development of the infrastructure used for the implementation of the EP is carried out based on the results of monitoring the satisfaction of the infrastructure by students, teachers, employees and other interested parties.

The university plans to provide EP with educational equipment and software. For example, according to the Development Program of Kokshetau University named after Sh. Ualikhanov for 2023-2029 (https://shokan.edu.kz/documents/1312/%D0%9F%D0%A0%D0%9E%D0%93%D0%A0%D0%90%D0%9C%D0%9C%D0%90_%D0%A0%D0%90%D0%97%D0%92%D0%98%D0%A2%D0%98%D0%AF_%D0%9A%D0%A3_%D0%B8%D0%BC.%D0%A8.%D0%A3%D0%B0%D0%BB%D0%B8%D1%85_%D0%B0%D0%BD%D0%BE%D0%B2%D0%B0_%D0%BD%D0%B0__2023-2029_%D0%B3%D0%B3.pdf) in the section Strategic directions, goals, target indicators and tasks for their achievement within the framework of Strategic direction 3. Sustainable development and corporate governance of the university, the task has been set to update and expand the material and technical base, providing the entire complex of the educational process. Measures to implement this task include improving the quality management system, ensuring safe and comfortable conditions for learning, living and recreation of students and teachers, modernizing sports and social infrastructure, incl. construction of dormitories. The expected results of the Development Program for updating and expanding the material and technical base providing the entire complex of the educational process are determined to achieve the share of financial resources spent on updating educational and scientific equipment - 1.02; the level of created conditions for inclusive education at the university is 90%; The provision of students with places in dormitories is 100%.

Analytical part

The university provides sufficient educational resources and student support services. The university infrastructure is a single complex, including educational buildings, multimedia classrooms, real virtual laboratories, computer classes, dormitories, sports facilities, and an educational research and production complex. Achieving the goals of educational programs is ensured by the sufficiency of material and technical resources and the modern infrastructure of the university, taking into account the needs of various groups of students in the context of educational programs. The learning environment is consistent with the mission of the university and the goals of the accredited educational programs. The material and technical base of the university provides opportunities for practical training and research work of doctoral students of an accredited educational program. At the same time, according to the results of a survey conducted as part of the EEC visit, 8 out of 52 students surveyed (15.4%) are not satisfied with the recreation rooms for students; 5 out of 52 students (9.6%) partially agree that the organization of education provides

sufficient opportunity for sports and other leisure activities, 9 out of 52 students (17.3%) partially agree that the facilities and equipment for students are safe, comfortable and modern. 20 out of 52 students surveyed (57.7%) are completely satisfied with the availability and quality of Internet resources, 33 out of 52 students surveyed (63.5%) with the availability of computer classes, and 30 out of 52 students surveyed (57.7%) with the available scientific laboratories. The problem of lack of access to the Internet/weak Internet is often encountered by 3 out of 60 surveyed teachers (5%), sometimes 36 out of 60 (60%). In accordance with these, the university management needs to provide the technical capabilities for the effective functioning of Wi-Fi throughout the university, consider opportunities for upgrading student lounges, and provide students with access to the university's sports and leisure facilities and computer classes. In addition, it is necessary to increase safety and comfort of educational laboratories, consider the possibility of purchasing modern educational equipment, taking into account rapidly developing sectors of the economy.

The university carries out systematic work to update and improve the material and technical base, the library annually creates a map of the EP's supply of educational, educational, methodological and scientific literature, updating the book fund taking into account established standards, access to licensed databases of domestic and foreign information holders is open, according to national license provides students, teachers and staff with access to databases such as Web of Science - Clarivate Analytics, Scopus. The library provides access to bibliographic records of the entire book collection through its own server and server technologies. The library collection is quite well stocked with additional literature, including official, periodical, reference and bibliographic publications (encyclopedias, reference books and dictionaries) on various profiles of personnel training. Issues of providing educational activities with the necessary resources are considered collectively. At the same time, the head of EP 8D01501 - Methodology of scientific research in mathematics education has not demonstrated mechanisms for monitoring the sufficiency and modernity of the resources used. At the same time, according to the results of a survey conducted as part of the EEC visit, 3 out of 60 teachers (5%) assess the sufficiency and accessibility of the necessary scientific and educational literature in the library relatively poorly.

The university implements procedures to support various groups of students, including information and consultation in all areas of university life. When implementing an accredited EP, information technologies and application software packages are used to improve the skills of using modern information technologies in solving professional problems. The University has been granted a license to use the Academic Program for 50 study places for 3 years. Examination of the results of research work, graduation works, dissertations for plagiarism is carried out in the "Strikeplagiarism" and Antiplagiat.ru systems."

Planning for providing EP with educational equipment and software similar to those used in the relevant sectors of the economy is carried out in accordance with the Development Program of Kokshetau University named after Sh. Ualikhanov for 2023-2029. At the same time, the volume of financial resources allocated for the purchase of laboratory equipment in 2023 decreased by 6.6 times compared to 2019 (from 45,342 thousand tenge in 2019 to 6,845.7 thousand tenge in 2023).

Strengths/best practices:

No strengths identified.

EEC recommendations:

- The management of the educational program 8D01501 - Methodology of scientific research in mathematics education to develop a roadmap for re-equipping the material and technical base of the faculty, taking into account rapidly developing information and computer technologies. Deadline: 08/31/2024.

- The university management must provide the technical capabilities for the effective functioning of Wi-Fi throughout the university. Deadline: 08/31/2024.

- The university management should develop an action plan to improve the safety and comfort

of educational laboratories and lounges for students. Deadline: 08/31/2024.

- The university management should develop forms and methods of informing students and teachers about the procedure for access to sports, leisure, and social facilities of the university, computer classes and educational laboratories.

EEC conclusions based on the criteria:

According to the standard “Educational resources and student support systems” OP 8D01501 - Methodology of scientific research in mathematics education has 9 satisfactory positions.

6.9. Public Information Standard

• The public organization must publish reliable, objective, up-to-date information about the educational program and its specifics, which should include:

- expected learning outcomes of the educational program being implemented;*
- qualifications 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 educational opportunities provided to students; • information about employment opportunities for graduates.*
- The management of the EP should provide for a variety of ways to disseminate information, including the media, information networks to inform the general public and interested parties.*
- Public information should include support and explanation of the country's national development programs and the system of higher and postgraduate education. • The educational organization must demonstrate the reflection on the web resource of information characterizing it in general 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 informing the public about cooperation and interaction with partners within the framework of the OP.*

Evidence

NJSC Kokshetau University named after. Sh. Ualikhanov" publishes objective and up-to-date information about ongoing educational programs and assigned qualifications, student achievements, graduates' successes, academic, scientific and public events, interaction with enterprises and organizations of science, business, culture, employment opportunities for graduates, information about the contingent students, information about teaching staff, reports, etc. (<https://www.shokan.edu.kz/ru/events/>, <https://www.shokan.edu.kz/ru/news/>).

Issues of informing the public are regulated by the Image Policy (QMS P 1.09-2022), Information Policy (QMS P 1.16-2022), Academic Policy (QMS P 4.45-2022), and Website Regulations (QMS P 3.03-2022). Published information is aimed at interested target audiences, including applicants, students, graduates, parents, employers and the general public.

To inform the public and interested parties, the official website of the university is used (<https://shokan.edu.kz/>), library Internet resource with access to the MEGAPRO Electronic Catalog (<https://www.shokan.edu.kz/ru/departments/library/>, <http://library.shokan.edu.kz/megapro/web>), social networks (Instagram, Facebook, V Kontakte, Twitter, Youtube), information booklets, media (republican and regional newspapers and television and radio media, for example, “Kazakhstanskaya Pravda”, “Akmola Pravda”, “Arka Azhary”, “Steppe Lighthouse”, local TV channel

Kazakhstan-Kokshetau, etc.) (for example, <https://24.kz/ru/news/obrazovanie-i-nauka/item/570668-kokshetauskomu-universitetu-imeni-sh-ualikhanova-60-let>). The university website includes such sections as “University”, “Admission”, “Education”, “Science”, “Erasmus”, “Global”. Information about ongoing educational programs is posted on the official website of the university in the “Education” section (<https://dulaty.kz/ru/education/implemented-edu-pro/>) and includes the goals of the educational program, the relevance of the educational program, main courses and elective disciplines, learning outcomes and competencies (e.g. <https://www.shokan.edu.kz/ru/educational-programs/metodologiya-nauchnyh-issledovaniy-v-matematicheskoy-obrazovanii/>).

Information for applicants is published in the "Admission" section. In the section "Admission

to Bachelor's Degree" there are innovations of the UNT 2024, threshold scores for the university's educational programs, information about the charitable program "Educational grants of the Kazakhstan Khalkyna Foundation", deadlines for accepting applications.

Information about educational opportunities provided to students is published in the "Student" section (<https://www.shokan.edu.kz/ru/for-a-student/>), including information about the summer semester, academic mobility, vacant grants and quotas, catalog of additional educational programs, orders, AERO EXAM instructions, reference book. Information about employment opportunities for graduates is available on the Career Center page (<https://www.shokan.edu.kz/ru/departments/career-center/>). This page also contains information about vacancies in various organizations, enterprises and companies.

Information about training, teaching methods, and assessment of educational achievements is contained in the Academic Policy posted on the university website (<https://drive.google.com/file/d/1QX36DUKgdS5cznr5Z6v3aJ1wGaG2zXmG/view>). The educational program contains information about the qualifications that will be awarded upon completion of the educational program.

The accounting policy of NJSC "Kokshetau University named after. Sh. Ualikhanov", audited financial statements for 2022, audited annual balance sheet 2022, audit report 2021, balance sheet (reporting period 2020), cash flow 2019.

The web pages of institutes/higher schools contain information about the history of development and research, teaching, methodological and educational work, teaching staff and students, information about the material and technical base and achievements, etc. The web pages of departments of faculties contain information about the history departments, links to educational programs, information about department teachers, scientific publications, contacts.

The information posted by the university provides support and explanation of the country's national development programs and the system of higher and postgraduate education. For example, the publication "Discussion platform with teachers of schools and colleges of the Akmola region on current issues of education" (<http://shokan.edu.kz/ru/news/diskussionnaya-ploshadka-s-uchitelyami-shkol-i-kolledzhej-akmolinskoj-oblasti-po-actualnym-voprosam-education/>), "Project "500 scientists" scholarship program "Bolashak"..." (<http://shokan.edu.kz/ru/news/proekt-500-uchenyh-scholarship-programmy-bolashak/>) and others.

General information about cooperation and interaction with partners within the EP is posted on the pages of institutes/higher schools and departments. More detailed information about cooperation, Kazakh and foreign partners of the university, foreign students and foreign scientists, academic mobility, projects and rankings is posted in the Global section of the website (<https://www.global.shokan.edu.kz/ru/>). For example, in 2019, Kokshetau State University named after. Sh. Ualikhanov became the owner of a grant project under the UniCEN program together with the University of Nebraska in Omaha on the topic "UNO-KSU Partnership Building through Enhancement of English and STEM teaching (Development of cooperation between Sh. Ualikhanov KSU and the University of Nebraska by improving English teaching language and STEM)". In 2019, Sh. Ualikhanov KSU became the owner of the grant project The English Access Microscholarship Program (Access). This program is implemented with the support of the US Department of State through the American Embassy in Astana and provides an opportunity for college students and first-year students of higher educational institutions from vulnerable groups aged 15-18 years, with good academic performance, to study English for free for a period of two years, as well as develop yourself as a person and as a leader by participating in the activities of the organization (<https://www.global.shokan.edu.kz/ru/%D0%BF%D1%80%D0%BE%D0%B5%D0%BA%D1%82%D1%8B/>). Also, the university actively participates in international educational projects of the Erasmus+ program (<http://shokan.edu.kz/ru/erasmus/>). The satisfaction of stakeholders with the quality of published information is monitored through

comments on social networks, through a book of complaints and through the rector's blog. Every year, the rector of the university presents a report on the work done for the year, inviting the public of the city and Akmola region.

Analytical part

The university publishes reliable, objective, up-to-date information about the educational program and its specifics, including the expected learning outcomes of the educational program being implemented, approaches to teaching and learning, the assessment system, both directly on the university website, on social networks, and in internal regulatory documents regulating issues organization of the educational process and posted on the university website. For example, the educational program contains information about the qualifications that will be awarded upon completion of the educational program. At the same time, the approved educational programs themselves are not posted on the website, and in the description of educational programs posted on the website there is no information about the qualifications assigned upon completion of the educational program.

Information about the student population and their achievements, the opportunities provided by the university to students, the success of graduates, academic, scientific and social events, the forms and results of the university's interaction in various fields, including within the framework of international cooperation, about employment opportunities for graduates, plans and reports of the university, information about teaching staff, including information about education, main disciplines taught, academic and scientific achievements, contacts, etc. are published on the official website of the university, on social networks, in the media, distributed through information booklets, press releases, during meetings with representatives of the public. Information to the public is carried out on the basis of the principles of transparency and openness. Students, teaching staff, employers and other interested parties are involved in the process of informing the public about the activities of the university, national development programs of the country and the system higher and postgraduate education. For applicants, statistical, organizational and information materials are posted on the university website. The accounting policy of NJSC "Kokshetau University named after. Sh. Ualikhanov", audited financial statements for 2022, audited annual balance sheet 2022, audit report 2021, balance sheet (reporting period 2020), cash flow 2019. In this regard, the university management needs to publish on its own website resource, current audited financial statements for educational programs.

Strengths/best practices:

No strengths identified.

EEC recommendations:

- The management of the university should post on the website information about the qualifications assigned upon completion of the educational program. Deadline: 08/31/2024.
- The management of the university should post the approved educational programs in full on the university website. Deadline: 08/31/2024.
- The management of the university should publish current audited financial statements on educational programs on its own website. Deadline: 08/31/2024.

EEC conclusions based on the criteria:

According to the "Public Information" standard OP 8D01501 - Methodology of scientific research in mathematics education has 10 satisfactory positions.

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

Strengths/best practice

According to the “Educational Program Management” standard:

The leadership of the EP demonstrates evidence of readiness for openness and accessibility for students, teaching staff, employers and other interested parties.

According to the Information Management and Reporting standard:

- By this standard, the OP has no strengths.

According to the standard “Development and approval of educational programs”: - By this standard, the OP has no strengths.

According to the standard “Continuous monitoring and periodic evaluation of educational programs”:

- By this standard, the OP has no strengths.

According to the standard “Student-centered learning, teaching and assessment of academic performance”:

- By this standard, the OP has no strengths.

According to the “Students” standard:

- By this standard, the OP has no strengths.

According to the “Faculty and Teaching Staff” standard:

- By this standard, the OP has no strengths.

According to the standard “Educational resources and student support systems”: -

By this standard, the OP has no strengths.

According to the “Public Information” standard:

- By this standard, the OP has no strengths.

(VIII) OVERVIEW RECOMMENDATIONS FOR IMPROVING SOFTWARE QUALITY TO EVERY STANDARD

EEC recommendations for EP 8D01501 – Methodology of scientific research in mathematics education:

According to the “Educational Program Management” standard

- The management of EP 8D01501 - Methodology of scientific research in mathematics education needs to develop a format and criteria for the participation of representatives of stakeholder groups, including employers, students and teaching staff in the formation of the EP development plan, and determine mechanisms for its revision. Deadline: September 1, 2024.
- The management of EP 8D01501 - Methodology of scientific research in mathematics education, in order to ensure regular monitoring of the effectiveness of the implementation of accredited educational programs, it is necessary to determine criteria for assessing the effectiveness of changes in educational programs. Deadline: September 1, 2024.
- The management of EP 8D01501 - Methodology of scientific research in mathematics education needs to adjust the EP Development Plan in terms of revising the factors that determine the individuality and uniqueness of the EP. Deadline: September 1, 2024.
- The management of EP 8D01501 - Methodology of scientific research in mathematics education in terms of the development of the educational program needs to reconsider possible risks, identify risks associated with the organization of the educational process, the content of disciplines, the formation of a contingent, the formation of student competencies and their assessment, etc. Deadline: September 1, 2024.
- The management of the university needs to carry out work to update internal documents in terms of defining mechanisms for managing innovation within the EP, procedures for analyzing and implementing innovative processes. Deadline: September 1, 2024.

According to the “Information Management and Reporting” standard

- The head of the EP 8D01501 - Methodology of scientific research in mathematics education needs to update the EP development plan taking into account the University Development Program, indicating the indicators available for measurement. Deadline - 09/01/2024.
- The head of EP 8D01501 - Methodology of scientific research in mathematics education needs to ensure a systematic analysis of the student population and determine in the Educational Program Development Plan measures to eliminate the risk of a lack of applicants for training. Deadline - 09/01/2024.

According to the standard “Development and approval of an educational program” no recommendations.

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

- The management of EP 8D01501 - Methodology of scientific research in mathematics education needs to monitor the effectiveness of student assessment procedures and update assessment procedures in the educational documentation of the EP. Deadline - 09/01/2024.
- The management of EP 8D01501 - Methodology of scientific research in mathematics education, when posting information about the educational program, focus the attention of interested parties on the changes made. Deadline - 09/01/2024.

According to the standard “Student-centered learning, teaching and assessment of academic performance”

- The head of EP 8D01501 - Methodology of scientific research in mathematics education

needs to develop a plan for advanced training of teachers in the field of innovative approaches to assessing learning outcomes. Deadline - 1.09.2024.

According to the “Students” standard

- The head of the educational program 8D01501 - Methodology of scientific research in mathematical education to develop a marketing plan to attract applicants for doctoral studies. Deadline - 1.08.2024.

- Post on the university website regulatory documents governing the rules of admission and enrollment in doctoral studies, or links to them. Deadline - 1.08.2024.

According to the “Faculty and Teaching Staff” standard

- The head of the educational program 8D01501 – “Methodology in scientific research in mathematics education” to develop an action plan to attract young specialists with a PhD degree to the department and employ doctoral graduates. Deadline: 08/31/2024.

- In the work programs of disciplines (syllabus), it is necessary to update the teaching methods used and ensure control over their implementation through the institute of mutual visits. Deadline: 08/31/2024.

According to the standard “Educational resources and student support systems” - The management of the educational program 8D01501 - Methodology of scientific research in mathematics education to develop a roadmap for re-equipping the material and technical base of the faculty, taking into account rapidly developing information and computer technologies. Deadline: 08/31/2024. - The university management must provide the technical capabilities for the effective functioning of Wi-Fi throughout the university. Deadline: 08/31/2024. - The university management should develop an action plan to improve the safety and comfort of educational laboratories and lounges for students. Deadline: 08/31/2024.

- The university management should develop forms and methods of informing students and teachers about the procedure for access to sports, leisure, and social facilities of the university, computer classes and educational laboratories.

According to the “Public Information” standard

- The management of the university should post on the website information about the qualifications assigned upon completion of the educational program. Deadline: 08/31/2024.

- The management of the university should post the approved educational programs in full on the university website. Deadline: 08/31/2024.

- The management of the university should publish current audited financial statements on educational programs on its own website. Deadline: 08/31/2024.

(IX) OVERVIEW OF RECOMMENDATIONS FOR ORGANIZATIONAL DEVELOPMENT EDUCATION

Reforms and changes carried out at the university in all areas of the university's activities must be accompanied by mandatory information and explanatory work among university employees, students, and other interested parties for a clear and complete understanding of the strategic objectives, the measures taken to achieve them and obtain the planned results.



(X) RECOMMENDATIONS TO THE ACCREDITATION BOARD

The external expert commission made a unanimous decision to recommend to the Accreditation Council to accredit the educational program 8D01501 - Methodology of scientific research in mathematical education of the NJSC "Kokshetau University named after Sh. Ualikhanov" for a period of 5 (five) years.



Appendix 1. Evaluation table “PARAMETERS” SPECIALIZED PROFILE”

**Conclusion of an external expert commission on quality assessment
educational program 8D01501 – Methodology of scientific research in
mathematical education of the NJSC “Kokshetau University named after
Sh. Ualikhanova”**

№ n/n	№ n/n	Evaluation criteria	Organization position education			
			St ro n gl	Sat isfy fles hyI	Ass um es imp rov eis	Dis sati sfie d fles hyI
Standard 1 “Educational program management”						
1	1.	The higher and/or postgraduate education organization 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.	A commitment to quality assurance must apply to any activity carried out by contractors and partners (outsourcing), including joint/double degree education and academic mobility.		+		
4	4.	The management of the EP demonstrates transparency in the development of a development plan for the EP, containing the start date for implementation, based on an 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 interested parties		+		
5	5.	The leadership of the EP demonstrates the presence of mechanisms for the formation and regular review of the development plan for the EP and monitoring its implementation, assessing the achievement of learning goals, compliance with the needs of students, employers and society, making decisions aimed at constantly improving the EP		+		
6	6.	The management of the EP should involve representatives of stakeholder groups, including employers, students and teaching staff in the formation of a development plan for the EP		+		
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 must demonstrate a clear definition of those responsible for business processes within the EP, an unambiguous distribution of job responsibilities of staff, and delimitation of the functions of collegial bodies		+		
9	9.	The management of the educational program must provide evidence of the transparency of the educational program management system		+		
10	10.	The management of the EP must demonstrate the existence of an internal quality assurance system for the EP, including its design, management and monitoring, their improvement, decision-making based on facts		+		
11	11.	The management of the EP must implement risk management, including		+		

		including within the framework of an educational program undergoing initial accreditation, as well as demonstrate a system of measures aimed at reducing the degree of risk				
12	12.	The management of the educational program must ensure the participation of representatives of employers, teaching staff, students and other interested parties in the collegial bodies governing the educational program, as well as their representativeness when making decisions on issues of managing the educational program		+		
13	13.	The PO must demonstrate innovation management within the EP, including the analysis and implementation of innovative proposals			+	
14	14.	The management of the EP must demonstrate evidence of readiness for openness and accessibility for students, teaching staff, employers and other interested parties	+			
15	15.	EP management must undergo training in educational management programs		+		
Total according to standard			1	12	2	0
Standard 2 “Information Management and Reporting”						
16	1.	The organization must demonstrate that it has a system for collecting, analyzing and managing information based on the use of modern information and communication technologies and software, and that it uses a variety of methods to collect and analyze information in the context of the organization		+		
17	2.	The management of the EP must demonstrate the existence of a mechanism for the systematic use of processed, adequate information to improve the internal quality assurance system		+		
18	3.	OP management must demonstrate fact-based decision making		+		
19	4.	The EP should provide for a system of regular reporting, reflecting all levels of the structure, including assessment of the effectiveness and efficiency of the activities of departments and departments, scientific research		+		

20	5.	The PA must establish the frequency, forms and methods of assessing the management of the EP, the activities of collegial bodies and structural divisions, senior management, and the implementation of scientific projects		+		
21	6.	The PA must demonstrate the determination of the procedure and ensuring the protection of information, including the identification of responsible persons for the accuracy and timeliness of information analysis and data provision		+		
22	7.	An important factor is the presence 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 communication mechanism with students, employees and other interested parties, as well as mechanisms for resolving conflicts		+		
24	9.	The educational organization must demonstrate the presence of mechanisms for measuring the degree of satisfaction of the needs of teaching staff, staff and students within the educational program		+		
25	10.	The PA must provide for an assessment of the effectiveness and efficiency of activities, including in the context of EP		+		
		<i>Information to be collected and analyzed within the framework of the OP should take into account:</i>				
26	11.	key performance indicators			+	
27	12.	dynamics of the student population in terms of forms and types			+	
28	13.	grade level, student achievement and dropout		+		
29	14.	student 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 public organization must confirm the implementation of procedures for processing personal data of students, employees and teaching staff based on their documented consent		+		

Total according to standard			0	14	2	0
Standard 3 “Development and approval of an educational program”						
32	1.	The PA must define and document procedures for developing EP and their approval at the institutional level		+		
33	2.	The management of the EP must ensure that the content of the EP corresponds to the established goals, including the intended learning outcomes		+		
34	3.	The management of the EP must demonstrate the existence of mechanisms for revising the content and structure of the EP, taking into account changes in the labor market, the requirements of employers and the social demands of society		+		

35	4.	The management of the EP must ensure the availability of developed models of the EP graduate that describe the learning outcomes and personal qualities		+		
36	5.	The management of the EP must demonstrate the conduct of external examinations of the content of the EP and the planned results of its implementation		+		
37	6.	The qualification awarded upon completion of the EP must be clearly defined and correspond to a certain level of the NQF and QF-EHEA		+		
38	7.	The management of the educational program must determine the influence of disciplines and professional practices on the formation of learning outcomes		+		
30	8.	An important factor is the possibility of preparing students for professional certification (IC)		+		
40	9.	The management of the EP must provide evidence of the participation of students, teaching staff and other interested parties 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 planned results correspond to the level of study (bachelor's, master's, doctoral)		+		
42	11.	The structure of the EP should provide for various types of activities to ensure that students achieve the planned learning outcomes		+		
43	12.	An important factor is the correspondence of the content of the EP and the learning outcomes of the EP implemented by organizations of higher and (or) postgraduate education in the EHEA		+		
Total according to standard			0	12	0	0
Standard 4 "Continuous monitoring and periodic evaluation educational programs"						
44	1.	The educational institution must determine mechanisms for monitoring and periodically evaluating the educational program to ensure the achievement of the goal and meet the needs of students and society and show the focus of the mechanisms on the continuous improvement of the educational program.		+		
		<i>Monitoring and periodic evaluation of the EP should include:</i>				
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 taught discipline		+		
46	3.	changes in the needs of society and the professional environment		+		
47	4.	workload, 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.	educational environment and support services, and their compliance with the goals of the EP		+		

51	8.	The management of the EP must demonstrate a systematic approach to monitoring and periodically assessing the quality of the EP		+		
52	9.	PO, OP management must determine a mechanism for informing all interested parties about any planned or taken actions regarding the PO		+		
53	10.	All changes made to the OP must be published			+	
Total according to standard			0	9	1	0
Standard 5 "Student-centred learning, teaching and assessment" progress"						
54	1.	The management of the OP must ensure respect and attention to		+		

		different groups of students and their needs, provide them with flexible learning paths				
55	2.	The management of the educational program should provide for the use of various forms and methods of teaching and learning		+		
56	3.	An important factor is the presence of your own research in the field of teaching methods of EP academic disciplines		+		
57	4.	The management of the educational program must demonstrate the presence of feedback mechanisms on the use of various teaching methods and evaluation of learning outcomes		+		
58	5.	The management of the educational program must demonstrate the presence of mechanisms to support student autonomy with simultaneous guidance and assistance from the teacher		+		
59	6.	The management of the educational program must demonstrate the existence of a procedure for responding to student complaints		+		
60	7.	The educational institution must ensure consistency, transparency and objectivity of the mechanism for assessing learning outcomes for each educational program, including appeal		+		
61	8.	The educational organization must ensure that the procedures for assessing the learning outcomes of EP students comply with the planned results and goals of the program, publishing criteria and assessment methods in advance		+		
62	9.	The educational institution must define mechanisms to ensure that each graduate of the educational program achieves learning outcomes and ensure the completeness of their formation		+		
63	10.	Evaluators must be proficient in modern methods of assessing learning outcomes and regularly improve their skills in this area		+		
Total according to standard			0	10	0	0
Standard 6 "Students"						

64	1.	The educational organization must demonstrate the existence of a policy for the formation of a contingent of students in the context of the educational program, ensure transparency and publication of its procedures regulating the life cycle of students (from admission to completion)		+		
		<i>The management of the EP must determine the procedure for forming the student population based on:</i>				
65	2.	minimum requirements for applicants		+		
66	3.	maximum group size when conducting seminars, practical, laboratory and studio classes		+		
67	4.	forecasting the number of government grants		+		
68	5.	analysis of available material, technical, information resources, human resources		+		
69	6.	analysis of potential social conditions for students, incl. provision of places in a hostel		+		
70	7.	The management of the educational program must demonstrate readiness to conduct special adaptation and support programs for newly admitted and foreign students		+		
71	8.	The public organization must demonstrate compliance of its actions with the Lisbon Recognition Convention, the presence of a mechanism for recognizing the results of academic mobility of students, as well as the results of additional, formal and informal training		+		
72	9.	The PA should cooperate with other educational organizations and national centers of the “European Network of National Information Centers for Academic Recognition and Mobility/National Academic Recognition Information Centers” ENIC/NARIC in order to ensure comparable recognition of qualifications		+		
73	10.	The educational institution must provide the opportunity for external and internal mobility of students of educational programs, 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 places of practice, promote		+		

		employment of graduates, maintaining contact with them				
75	12.	The educational institution must provide for the possibility of providing graduates of the educational program with documents confirming the qualifications obtained, including the achieved learning outcomes, as well as the context, content and status of the education received and evidence of its completion		+		
Total according to standard			0	12	0	0
Standard 7 “Faculty and teaching staff”						

76	1.	The PA must have an objective and transparent personnel policy, including in the context of EP, including recruitment, professional growth and development of personnel, ensuring the professional competence of all staff		+		
77	2.	The PO must demonstrate compliance of the staff potential of the teaching staff with the specifics of the EP		+		
78	3.	The management of the EP must demonstrate awareness of responsibility for its employees and provide them with favorable working conditions		+		
79	4.	The management of the educational program must demonstrate a change in the role of the teacher in connection with the transition to student-centered learning		+		
80	5.	The PA must determine the contribution of the teaching staff of the EP to the implementation of the development strategy of the PA, and other strategic documents		+		
81	6.	The educational institution should provide opportunities for career growth and professional development of teaching staff of the EP		+		
82	7.	The management of the EP must demonstrate its readiness to involve practitioners in relevant sectors of the economy in teaching.		+		
83	8.	The educational organization must demonstrate the motivation for the professional and personal development of teachers of the educational program, including encouragement for the integration of scientific activities and education, the use of innovative teaching methods		+		
84	9.	An important factor is readiness to develop academic mobility within the EP and attract the best foreign and domestic teachers		+		
Total according to standard			0	9	0	0
Standard 8 “Educational resources and student support systems”						
85	1.	The educational institution must guarantee a sufficient number of educational resources and student support services to ensure the achievement of the educational objectives		+		
86	2.	The educational institution 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 educational institutions (adults, working people, foreign students, as well as students with disabilities)		+		
87	3.	The management of the educational program must demonstrate the availability of procedures for supporting various groups of students, including information and consultation		+		
		<i>The management of the EP must demonstrate the compliance of information resources with the specifics of the EP, including:</i>		+		
88	4.	technological support for students and teaching staff (for example, online learning, modeling, databases, data analysis programs)		+		

89	5.	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		+		
90	6.	examination of research results, 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.	OO demonstrates planning for providing EP with training		+		

		equipment and software similar to those used in the relevant sectors of the economy				
Total according to standard			0	9	0	0
Standard 9 “Public Information”						
		<i>The public organization must publish reliable, objective, up-to-date information about the educational program and its specifics, which should include:</i>		+		
94	1.	expected learning outcomes of the educational program being implemented		+		
95	2.	qualifications and (or) qualifications that will be awarded upon completion of the educational program		+		
96	3.	approaches to teaching, learning, as well as the system (procedures, methods and forms) of assessment		+		
97	4.	information about passing scores and educational opportunities provided to students		+		
98	5.	information about 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 information should include support and explanation of the country’s national development programs and the system of higher and postgraduate education		+		
101	8.	The educational organization must demonstrate the reflection on the web resource of information characterizing it in general and in the context of educational programs		+		
102	9.	An important factor is the availability of adequate and objective information about the teaching staff of the EP		+		
103	10.	An important factor is informing the public about cooperation and interaction with partners within the framework of the OP		+		
Total according to standard			0	10	0	0
TOTAL			1	97	5	0



AGREED

Chairman of the Board – Rector

NAO “Kokshetau University named after Sh. Ualikhanova”

_____ M. Syrlybaev

"....." May 2024

Appendix 2. PROGRAM OF THE VISIT TO THE EDUCATIONAL ORGANIZATION

PROGRAM

VISIT OF THE IAAR EXTERNAL EXPERT COMMISSION

In NAO “KOKSHETAUS UNIVERSITY NAMED Sh. WALIKHANOVA”

APPROVED

General Director of the NU "Independent Agency for Accreditation and Rating"

_____ A. Jumagulova

"...." May 2024

(SPECIALIZED AND PRIMARY SPECIALIZED ACCREDITATION)

Date of visit: May 27 – 29, 2024

Cluster	Educational programs
Cluster 1 (specialized accreditation)	6B02302 Translation (English, German/Chinese)
	8D02301 Philology: Kazakh philology
Cluster 2 (specialized accreditation)	6B04106 Banking and financial management 6B04105 Accounting and economic analysis
Cluster 3 (specialized accreditation)	6B05102 Biotechnology by industry 7M01504 Biology 7M08102 Soil science and agrochemistry
Cluster 4 (specialized accreditation)	8D02201 History 7M02201 History and socio-religious sciences
Cluster 5 (primary accreditation)	8D01501 Methodology of scientific research in mathematics education
Cluster 6 (primary accreditation)	7M05203 Waste management 7M05303 Chemistry of biologically active compounds

Cluster 7 (initial accreditation)	6B10102 Public health
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Date and time	Work of the EEC with target groups	Position and Last name, first name, patronymic target group participants	Contact form
May 24, 2024			
16.00-17.00 (time Astana)	Preliminary meeting of the EEC (discussion key issues and visit program)	IAAR External Experts	Join the Zoom conference https://us02web.zoom.us/j/4641732969 69 Conference ID: 464 173 2969
On schedule	Arrival of members of the External Expert Commission		

for day			
18.00	Dinner	IAAR External Experts	
		Day 1: May 27, 204	

09.00-09.30	Distribution responsibility experts, decision organizational questions	IAAR External Experts	<p>Join the Zoom meeting https://us02web.zoom.us/j/4641732969 Conference ID: 464 173 2969 Conference hall, ch. building, 2nd floor</p>
09.30-10.00	Meeting with the Chairman of the Board - Rector	Chairman of the Board – Rector – Syrlybaev Marat Kadiruly	<p>Join the Zoom meeting https://us02web.zoom.us/j/4641732969 Conference ID: 464 173 2969 Hall of the Academic Council, ch. building, 2nd floor</p>
10.00-10.15	Technical break		
10.15-11.00	Meeting with Members Boards - Vice-rectors	Member of the Board for Academic Affairs – Nurlan Amirovich Medetov, Doctor of Physical and Mathematical Sciences;	<p>Join the Zoom meeting https://us02web.zoom.us/j/4641732969 69</p>

		<p>Member of the Board for scientific work and interaction with the region - Aigul Doszhanovna Zhakupova, Doctor of Philology, Professor</p> <p>Member of the Board for Internationalization and Infrastructure Development –</p> <p>Sagyndykova Zhailagul Oralovna, Candidate of Philological Sciences</p> <p>Member of the Board for Social and Cultural Development</p> <p>Ardak Kaiyrzhanovich Kapyshev, Candidate of Historical Sciences</p>	<p>Conference ID: 464 173 2969</p> <p>Academic Council Hall, main building, 2nd floor</p>
11.00-11.10	Technical break		

<p>11.10-11.50</p>	<p>Meeting with leaders structural divisions</p>	<p>Head of the Rector’s Office – Baymanova Lyazzat Seitzievna, Candidate of Philological Sciences</p> <p>Head of the Department of Academic Development - Memeshov Sansyzbai Koishibaevich, Candidate of Agricultural Sciences</p> <p>Head of the Department of Science and International Cooperation - Baidalin Marden Ersainovich, PhD</p> <p>Head of the Department of Postgraduate Education – Kusainova Aiman Akayevna, Candidate of Economic Sciences</p> <p>Head of the Youth Policy Department - Mukhamedieva Zhadyra Tanatovna</p> <p>Head of the Department for Economic Affairs - Nurlan Kadyrbekovich Bagatbekov</p> <p>Head of the Department of Strategy, Accreditation and Quality Management – Turtkaraeva Gulnara Bayanovna, Candidate of Pedagogical Sciences</p>	<p>Join the Zoom meeting https://us02web.zoom.us/j/4641732969</p> <p>69</p> <p>Conference ID: 464 173 2969</p> <p>Hall of the Academic Council, ch. building, 2nd floor</p>
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		<p>Head of the center for planning educational and educational methodological work - Yergalieva Galiya Manasovna</p> <p>Head of the Registrar's Office - Kenzhesarina Aidana Zhumabekovna</p> <p>Head of the Career and Employment Center - Tazhmieva Aizhan Alikulovna</p> <p>Head of the International Project Management Center - Kakabaev Anuarbek Ayazbaevich, Candidate of Biological Sciences</p> <p>Head of the International Cooperation Department – Ainur Baurzhanovna Toktarova</p> <p>Head of Digitalization Department – Almusaev Olzhas Sadenovich</p>	
<p>11.50-12.00</p>	<p>Exchange of views among members of the external expert commission</p>	<p>IAAR External Experts</p>	<p>Join the Zoom meeting</p> <p>https://us02web.zoom.us/j/4641732969</p> <p>69</p> <p>Conference ID: 464 173 2969</p>

12.00-12.40	Meeting with directors of institutes/higher schools of accredited educational programs	<p>Director of the Pedagogical Institute - Bekseitova Akbota Tastanbekovna, Candidate of Historical Sciences</p> <p>Director of the Agrotechnical Institute named after. S. Sadvakasova – Zhaparova Sayagul Beketovna, Candidate of Technical Sciences</p> <p>Director of the Higher School of Medicine – Svetlana Kabdenovna Muratbekova, Doctor of Medical Sciences</p> <p>Director of the Higher School of Business and Law - Iskakov Abay Zhantasovich, Doctor of Economics</p>	<p>Join the Zoom meeting https://us02web.zoom.us/j/4641732969</p> <p>Conference ID: 464 173 2969</p> <p>Hall of the Academic Council, ch. building, 2nd floor</p>
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12.40-13.00	Work of the EEC	IAAR External Experts	<p>Join the Zoom meeting https://us02web.zoom.us/j/4641732969</p> <p>Conference ID: 464 173 2969</p> <p>Conference hall, ch. building, 2nd floor</p>
13.00-14.00	Dinner		

14.00-14.15	Work of the EEC	IAAR External Experts	Join the Zoom meeting https://us02web.zoom.us/j/4641732969 Conference ID: 464 173 2969 Conference hall, ch. building, 2nd floor
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<p>14.15-15.00</p>	<p>Meeting with heads of departments and OP managers</p>	<p>Head of the Department of English Language and Teaching Methods – Ryspaeva Dinara Sarsenbaevna, Candidate of Philological Sciences Head of the Department of Kazakh Language and Literature – Molgazhdarov Kasiet Kakenovich, Candidate of Philological Sciences Head of the Department of Business and Services – Utegenova Zhuldyz Sayranovna, Candidate of Economic Sciences Head of the Department of Chemistry and Biotechnology – Nurmukhanbetova Nurgul Nurkenovna, Candidate of Chemical Sciences Head of the Department of Biology and Teaching Methods - Durmekbaeva Shynar Nurlybekovna, Candidate of Biological Sciences Head of the Department of Agriculture and Bioresources - Shegenov Serikbay Taishibaevich, Candidate of Agricultural Sciences Head of the Department of History, Geography and Social Humanities – Utegenov Marat Zinatovich, Candidate of Historical Sciences Head of the Department of Mathematics, Physics and Informatics – Kostangeldinova Alma Akzhanovna, Candidate of Pedagogical Sciences Head of the Department of Mining, Construction and Ecology – Natalya Vasilievna Khvatina</p>	<p>Join the Zoom meeting https://us02web.zoom.us/j/4641732969 Conference ID: 464 173 2969 Academic Council Hall, Ch. building, 2nd floor</p>
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		Head of the Department of Morphology, Physiology and General Pathology – Zhangalov Banurzhan Bayanovich, Candidate of Medical Sciences	
15.00-15.10	Technical break		Conference hall, ch. building, 2nd floor
15.10-16.00	Meeting with teaching staff OP	Clusters 1, 4, 5 (Appendix No. 1) (session hall zoom 1)	Join the Zoom meeting https://us02web.zoom.us/j/4641732969 Conference ID: 464 173 2969 Academic Council Hall, Ch. building, 2nd floor
		Clusters 3, 6 (Appendix No. 1) (session hall zoom 2)	Join the Zoom meeting https://us02web.zoom.us/j/4641732969 Conference ID: 464 173 2969 Aud. No. 207

		Cluster 7 (Appendix No. 1) (session hall zoom 3)	<p>Join the Zoom meeting</p> <p>https://us02web.zoom.us/j/4641732969</p> <p>Conference ID: 464 173 2969</p> <p>Conference hall, ch. building, 2nd floor</p>
		Cluster 2 (Appendix No. 1) (session hall zoom 4)	<p>Join the Zoom meeting</p> <p>https://us02web.zoom.us/j/4641732969</p> <p>Conference ID: 464 173 2969</p> <p>Aud. No. 106</p>
16.00-17.00	Survey of teaching staff (parallel)	(Appendix No. 2)	The link is sent to the teacher's e-mail personally
16.00-16.10	Exchange of views among members of the external expert commission		<p>Join the Zoom meeting</p> <p>https://us02web.zoom.us/j/4641732969</p> <p>Conference ID: 464 173 2969</p> <p>Conference hall, ch. building, 2nd floor</p>

16.10-17.00	Meeting with EP students	Clusters 1, 4, 5 (Appendix No. 3) (session hall zoom 1)	<p>Join the Zoom meeting</p> <p>https://us02web.zoom.us/j/4641732969</p> <p>Conference ID: 464 173 2969</p> <p>Academic Council Hall, Ch. building, 2nd floor</p>
		Clusters 3, 6 (Appendix No. 3) (session hall zoom 2)	<p>Join the Zoom meeting</p> <p>https://us02web.zoom.us/j/4641732969</p>

			<p>Conference ID: 464 173 2969</p> <p>Aud. No. 207</p>
		Cluster 7 (Appendix No. 3) (session hall zoom 3)	<p>Join the Zoom meeting</p> <p>https://us02web.zoom.us/j/4641732969</p> <p>Conference ID: 464 173 2969</p> <p>Conference hall, ch. building, 2nd floor</p>

		Cluster 2 (Appendix No. 3) (session hall zoom 4)	Join the Zoom meeting https://us02web.zoom.us/j/4641732969 Conference ID: 464 173 2969 Aud. No. 106
17.00-18.00	Questioning EP students (parallel)	(Appendix No. 4)	The link is sent to the student's e-mail personally
17.00-17.50	Visual inspection of the OP and financially technical and educational laboratory base	(Appendix No. 9)	Along the route
17.50-18.00	Work of the EEC discussion of the results of the first day	IAAR External Experts	Join the Zoom meeting https://us02web.zoom.us/j/4641732969 Conference ID: 464 173 2969
			Conference hall, ch. building, 2nd floor
18.00-19.00	Dinner	IAAR External Experts	

Day 2: May 28, 2024			
09.00-09.30	Work of the EEC	IAAR External Experts	Join the Zoom meeting https://us02web.zoom.us/j/4641732969 Conference ID: 464 173 2969 Conference hall, ch. building, 2nd floor
09.30-11.30	Selective visits to EP practice bases	External IAAR experts according to the route sheet (Appendix No. 7)	
11.30-13.00	Working with department documents and visiting teaching staff classes in schedule	(Appendix No. 8)	
13.00-14.00	Dinner		
14.00-14.20	Exchange of views among members of the external expert commission	IAAR External Experts	Join the Zoom meeting https://us02web.zoom.us/j/4641732969 Conference ID: 464 173 2969 Conference hall, ch. building, 2nd floor

<p>14.20-15.10</p>	<p>Meeting with stakeholders (representatives of practice bases and employers) (hybrid)</p>	<p>Clusters 1, 4, 5 (Appendix No. 6) (session hall zoom 1)</p>	<p>Join the Zoom meeting https://us02web.zoom.us/j/4641732969 Conference ID: 464 173 2969 Academic Council Hall, Ch. building, 2nd floor</p>
		<p>Clusters 3, 6 (Appendix No. 6) (session hall zoom 2)</p>	<p>Join the Zoom meeting https://us02web.zoom.us/j/4641732969 Conference ID: 464 173 2969 Aud. No. 207</p>
		<p>Cluster 7 (Appendix No. 6) (session hall zoom 3)</p>	<p>Join the Zoom meeting https://us02web.zoom.us/j/4641732969 Conference ID: 464 173 2969 Conference hall, ch. building, 2nd floor</p>

		Cluster 2 (Appendix No. 6) (session hall zoom 4)	Join the Zoom meeting https://us02web.zoom.us/j/4641732969 69 Conference ID: 464 173 2969 Aud. No. 106
15.10-15.30	Technical break		

15.30-16.10	Meeting with EP graduates (hybrid)	Clusters 1, 4, 5 (Appendix No. 5) (session hall zoom 1)	Join the Zoom meeting https://us02web.zoom.us/j/4641732969 69 Conference ID: 464 173 2969 Academic Council Hall, Ch. building, 2nd floor
		Clusters 3, 6 (Appendix No. 5) (session hall zoom 2)	Join the Zoom meeting https://us02web.zoom.us/j/4641732969 69 Conference ID: 464 173 2969 Aud. No. 207

		Cluster 7 (Appendix No. 5) (session hall zoom 3)	<p>Join the Zoom meeting</p> <p>https://us02web.zoom.us/j/4641732969</p> <p>Conference ID: 464 173 2969</p> <p>Conference hall, ch. building, 2nd floor</p>
		Cluster 2 (Appendix No. 5) (session hall zoom 4)	<p>Join the Zoom meeting</p> <p>https://us02web.zoom.us/j/4641732969</p> <p>Conference ID: 464 173 2969</p> <p>Aud. No. 106</p>
16.10-16.30	Technical break		
16.30-19.00	Work of the EEC, discussion of the results of the second day and profile parameters (recording is being carried out)	IAAR External Experts	<p>Join the Zoom meeting</p> <p>https://us02web.zoom.us/j/4641732969</p> <p>Conference ID: 464 173 2969</p> <p>Conference hall, ch. building, 2nd floor</p>
19.00-20.00	Dinner	IAAR External Experts	

Day 3: May 29, 2024			
09.00-11.30	Work of the EEC: development and discussion recommendations	IAAR External Experts	Join the Zoom meeting https://us02web.zoom.us/j/4641732969 69 Conference ID: 464 173 2969 Conference hall, ch. building, 2nd floor
11.30-11.40	Technical break		
11.40-12.30	Work of the EEC: development and discussion recommendations (recorded)	IAAR External Experts	Join the Zoom meeting https://us02web.zoom.us/j/4641732969 69 Conference ID: 464 173 2969 Conference hall, ch. building, 2nd floor
12.30-13.00	Work of the EEC	IAAR External Experts	Join a Zoom meeting

			<p>https://us02web.zoom.us/j/4641732969 Conference ID: 464 173 2969 Conference hall, ch. building, 2nd floor</p>
13.00-14.00	Dinner		University canteen
14.00-16.00	Work of the EEC: discussion, decision making through voting (recorded)	IAAR External Experts	<p>Join the Zoom meeting https://us02web.zoom.us/j/4641732969 Conference ID: 464 173 2969 Conference hall, ch. building, 2nd floor</p>
16.00-16.30	Work of the EEC, Discussion of the results of quality assessment	IAAR External Experts	<p>Join the Zoom meeting https://us02web.zoom.us/j/4641732969 Conference ID: 464 173 2969 Conference hall, ch. building, 2nd floor</p>

16.30-17.00	Final meeting of the EEC with the university management		Join the Zoom meeting https://us02web.zoom.us/j/4641732969 69 Conference ID: 464 173 2969
			Hall of the Academic Council, ch. building, 2nd floor
18.00-19.00	Dinner		

Appendix 3. RESULTS OF A SURVEY OF TEACHERS

Faculty Questionnaire

1. Total number of questionnaires: 60

2. Position, %

Professor	6 (10%)
Associate Professor/Associate Professor	8(13,3%)
Senior Lecturer	26(43,3%)
Teacher	12(20%)
Head Department	1(1,7%)
Lecturer's assistant	1(1,7%)
Lecturer	1(1,7%)
PhD doctor, assistant professor	1(1,7%)
Assistant Professor	1(1,7%)
Assistant Lecturer	1(1,7%)
Other	2 (3,4%)

3. Academic degree, academic title

Honored Worker	0(0%)
Doctor of Science	1(1,7%)
Candidate of Sciences	10(16,7%)
Master's degree	34(56,7%)
PhD	12(20%)

Professor	0(0%)
Associate Professor/Associate Professor	5(8,3%)
No	3(5%)
Graduated from doctoral studies	1(1,7%)
Other	

4. Work experience at this university

Less than 1 year	4(6,7%)
1 year – 5 years	10(16,7%)
Over 5 years	46(76,7%)
Other	

№	Questions	Very Fine	Fine	Relationships flax Badly	Bad o	Very Badly	Not answered
1	How much content educational program answers your scientific and professional interests and needs?	43(71,7%)	17(28,3%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
2	How do you rate possibilities, provided University, for professional development of teaching staff	38(63,3%)	22(36,7%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
3	How do you rate possibilities, provided University, for career PPP growth	33(55%)	27(45%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
4	How do you rate academic degree freedom of the teaching staff	38(63,3%)	22(36,7%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	How much teachers can use own						
5	Learning Strategies	39(65%)	21(35%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
6	Teaching methods	42(70%)	18(30%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
7	Educational innovation	41(68,3%)	18(30%)	1(1,7%)	0 (0%)	0 (0%)	0 (0%)
8	How do you rate reorganization work medical care and	34(56,7%)	23(38,3%)	3(5%)	0 (0%)	0 (0%)	0 (0%)

	prevention diseases at university?						
9	What attention given by management educational institution content educational programs?	42(70%)	18(30%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
10	How do you rate sufficiency and availability necessary scientific and educational literature in libraries?	28(46,7%)	29(48,3%)	3(5%)	0 (0%)	0 (0%)	0 (0%)
11	Rate the level created conditions, taking into account needs of various groups of students?	25(41,7%)	35(58,3%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	Assess openness and availability manuals						
12	To students	39(65%)	20(33,3%)	1(1,7%)	0 (0%)	0 (0%)	0 (0%)
13	teachers	37(61,7%)	23(38,3%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
14	Rate your engagement PPP in process adoption managerial and strategic decisions	20(33,3%)	37(61,7%)	3(5%)	0 (0%)	0 (0%)	0 (0%)
15	How is it encouraged? innovative activities of teaching staff?	32(53,3%)	27(45%)	1(1,7%)	0 (0%)	0 (0%)	0 (0%)
16	Rate the level feedback from teaching staff management	32(53,3%)	25(41,7%)	3(5%)	0 (0%)	0 (0%)	0 (0%)

17	What is the level stimulation and attracting young specialists to educational process?	33(55%)	26(43,3%)	1(1,7%)	0 (0%)	0 (0%)	0 (0%)
18	Rate the created opportunities for professional and	28(46,7%)	31(51,7%)	1(1,7%)	0 (0%)	0 (0%)	0 (0%)

	personal growth for every teacher and employee						
19	Assess adequacy confessions university management potential and abilities teachers	26(43,3%)	32(53,3%)	2(3,3%)	0 (0%)	0 (0%)	0 (0%)
	How the work is done						
20	According to academic mobility	29(48,3%)	30(50%)	1(1,7%)	0 (0%)	0 (0%)	0 (0%)
21	By promotion teaching staff qualifications	38(63,3%)	22(36,7%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	Rate support university and its leadership			0 (0%)	0 (0%)	0 (0%)	0 (0%)
22	Scientifically research beginnings of teaching staff	39(65%)	21(35%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
23	Development of new educational programs/training disciplines/methods training	40(66,7%)	20(33,3%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)

	Rate the level opportunities for teaching staff combine teaching						
24	with scientific research	23(38,3%)	33(55%)	4(6,7%)	0 (0%)	0 (0%)	0 (0%)
25	from practical activities	19(31,7%)	40(66,7%)	1(1,7%)	0 (0%)	0 (0%)	0 (0%)
26	Assess how much knowledge corresponds students received at the university, realities requirements modern market labor	34(56,7%)	26(43,3%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
27	How does he perceive management and university administration criticism towards you?	16(26,7%)	41(63,8%)	3(5%)	0 (0%)	0 (0%)	0 (0%)
28	Rate how much Your course load matches yours expectations and opportunities?	18(30%)	41(68,3%)	1(1,7%)	0 (0%)	0 (0%)	0 (0%)
29	Rate focus educational programs/training programs for formation of learning skills and skills to analyze situation and build forecasts?	29(48,3%)	30(50%)	1(1,7%)	0 (0%)	0 (0%)	0 (0%)

30	Rate how much educational program for content and quality implementation corresponds labor market expectations and employers	35(58,3%)	25(41,7%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
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Why do you work at this university?

Everything is fine

Good staff and students

Team, enjoy teaching

There is the possibility of combining teaching activities with scientific research. Incentives for the degree.

Good working conditions, listening management, the opportunity to improve qualifications. The university provides good opportunities for professional growth and development.

I believe this university is appropriate for my career development I enjoy working with students

The university in this region and city is the leading and best.

Allows me to realize opportunities in my area of interest

I like the atmosphere, the team, working with students

Salary, participation in projects, team

My favorite university, Alma mater

I am a graduate of the university and from the moment of graduation to this day I have been working at the department

Patriot of this university is the best university in our region

Professional approach, adequate and responsible management

I grew up in Kokshetau, studied here, live here

I received my education and worked at this university for over 50 years.

By invitation

This university has all the conditions for pedagogical development.

Patriot of this university

Because this is my home university, my home department, I want to be as useful as possible for students

By place of residence

I graduated from this university and want to support

Scientific focus of the university

Opportunity for professional development,

As a university graduate, I want to work together with professionals in my field, grow and develop

under the guidance of highly qualified specialists

To train a specialist

I studied this at the university as a bachelor's and master's degree student. I like the atmosphere at the department. Great opportunities

The educational institution that provides the highest quality education in the northern region

Good working conditions

Pashtar University in the northern region

Strong teachers, high university rating

I came to this higher educational institution with a ministerial referral.

Working conditions satisfy me

The best university was in the Post-Soviet space

Because there are all conditions here that suit us

I love the school very much! I'm a graduate! everything is done!

I like combining research with teaching. It is possible to plan your free time.

Career Opportunities

Like

I am satisfied with the working conditions

The university provides good opportunities for both students and teachers. It's nice to work among intelligent people who are professionals.

There is truth and honesty in this educational institution. The teacher has improved himself or the conditions have been created.

I have been given the best possible conditions for my professional development

I am a graduate of this university 2004-2008, since my student years I have been the winner of competitions, Shokan Zhuldyzy-2007, graduated from the master's program 2008-2010 there, became Curator of the Year -2017, deputy dean for temporary work from 2010-2015. Completed targeted doctoral studies. The university provided support from the very beginning, at every stage.

I studied here, good staff

This is my alma mater

I wanted to start teaching

This is the best university in the region

The potential is good

32. How often are master classes and classes with the participation of practitioners held as part of your course?

very often	often	Sometimes	very rarely	never
15(25%)	39(65%)	6(10%)	0 (0%)	0 (0%)

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

very often	often	Sometimes	very rarely	never
18(30%)	34(56,7%)	8(13,3%)	0 (0%)	0 (0%)

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

Questions	Often	Sometimes	Never	No answer
Lack of classrooms	2(3,3%)	17(28,3%)	41(68,3%)	
Imbalance in academic loads by semester	4(6,7%)	16(26,7%)	40(66,7%)	
Unavailability of necessary literature in the library	1(1,7%)	32(53,3%)	27(45%)	
Overcrowding of study groups (too many students in a group)	2(3,3%)	14(23,3%)	44(73,3%)	
Inconvenient schedule		17(28,3%)	43(71,7%)	
Inappropriate conditions for classes in classrooms		21(35%)	39(65%)	
Lack of access to Internet/weak internet	3(5%)	36(60%)	21(35%)	
Lack of interest among students training		29(48,3%)	31(51,7%)	
Late receipt information about events	1(1,7%)	17(28,3%)	42(70%)	
Lack of technical means classroom training	1(1,7%)	33(55%)	26(43,3%)	

Other problems	<p>All conditions are made</p> <p>There are no obvious problems in dynamics</p> <p>Sometimes there are problems with the Internet and tech. Ensuring salary increases</p> <p>Low salaries</p> <p>Listed above</p> <p>Auditorium renovation</p> <p>No problem</p> <p>small little things that can be done in the current order decide</p> <p>There were no situations that could not be decide</p>
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35. There are many different sides and aspects in the life of a university that in one way or another affect every teacher and employee. Rate how satisfied you are:

Questions	Fully satisfied ,(1)	Chastic satisfied (2)	Not satisfied (3)	I'm at a loss answer (4)
Attitude towards you runiversity management to To you	47(78,3%)	12(20%)	0 (0%)	1(1,7%)
Relationships with direct management	51(85%)	7(11,7%)	1(1,7%)	1(1,7%)
Relationships with colleagues at department	58(96,7%)	2(3,3%)	0 (0%)	0 (0%)
Degree of participation in acceptance managerial solutions	45(75%)	15(25%)	0 (0%)	0 (0%)

Relationships with students	60(100%)	0 (0%)	0 (0%)	0 (0%)
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Recognition of your success and achievements with sides administration	51(85%)	8(13,3%)	1(1,7%)	0 (0%)
With the support of your proposals and comments	46(76,7%)	14(23,3%)	0 (0%)	0 (0%)
Activities university administration	47(78,3%)	13(21,7%)	0 (0%)	0 (0%)
Terms of payment labor	25(41,7%)	28(46,7%)	7(11,7%)	0 (0%)
Working conditions, list and quality of services, provided at the university	47(78,3%)	13(21,7%)	0 (0%)	0 (0%)
Occupational safety and health security	48(80%)	12(20%)	0 (0%)	0 (0%)
Management changes in university activities	41(68,3%)	19(31,7%)	0 (0%)	0 (0%)
By providing social package: rest, sanatorium treatment, etc.	34(56,7%)	13(21,7%)	7(11,7%)	6(10%)
Organization and food quality in university	33(55%)	23(38,3%)	2(3,3%)	2(3,3%)
Organization and quality medical service	41(68,3%)	15(25%)	1(1,7%)	3(5%)

Appendix 4. RESULTS OF THE STUDENT SURVEY

Questionnaire for students

Total number of questionnaires: 52

Floor:

Male	36(69,2%)
Female	16(36,8%)

Rate how satisfied you are:

Questions	Fully satisfied	Partially satisfied	Partially not satisfied	Not satisfied	I'm making it difficult to answer
Relations with the dean's office (school, faculty, department)	45(86,5%)	7(13,5%)	0(0%)	0(0%)	0(0%)
Level of accessibility of the dean's office (school, faculty, department)	42(80,8%)	10(19,2%)	0(0%)	0(0%)	0(0%)
The level of accessibility and responsiveness of management (university, school, faculty, department)	44(84,6%)	7(13,5%)	1(1,9%)	0(0%)	0(0%)
Availability of academic advising	43(82,7%)	8(15,4%)	1(1,9%)	0(0%)	0(0%)
Support with educational materials during the learning process	39(75%)	12(23,1%)	1(1,9%)	0(0%)	0(0%)

Availability of counseling on personal problems	42(80,8%)	7(13,5%)	2(3,8%)	1(1,9%)	0(0%)
Relationship between student and teacher	42(80,8%)	10(19,2%)	0(0%)	0(0%)	0(0%)
Activities of financial and administrative services of the educational institution	36(69,2%)	15(28,8%)	1(1,9%)	0(0%)	0(0%)
Availability of health services	41(78,8%)	10(19,2%)	1(1,9%)	0(0%)	0(0%)
Quality of medical care at the university	33(63,5%)	16(30,8%)	1(1,9%)		

Level of accessibility of library resources	42(80,8%)	8(15,4%)	2(3,8%)	0(0%)	0(0%)
The quality of services provided in libraries and reading rooms	38(73,1%)	12(23,1%)	2(3,8%)	0(0%)	0(0%)
Existing educational resources of the university	42(80,8%)	8(15,4%)	1(1,9%)	1(1,9%)	0(0%)
Availability of computer classes	33(63,5%)	11(21,2%)	5(9,6%)	3(5,8%)	0(0%)
Availability and quality of Internet resources	20(57,7%)	11(21,2%)	9(17,3%)	2(3,8%)	0(0%)
The content and information content of the website of educational organizations in general and faculties (schools) in particular	40(76,9%)	10(19,2%)	1(1,9%)	1(1,9%)	0(0%)
Study rooms, auditoriums for large groups	36(69,2%)	12(23,1%)	2(3,8%)	2(3,8%)	0(0%)
Lounges for students (if available)	23(44,2%)	11(21,2%)	4(7,7%)	8(15,4%)	6(11,5%)

Clarity of procedures for taking disciplinary action	40(76,9%)	10(19,2%)	0		
The quality of the educational program as a whole	43(82,7%)	9(17,3%)	0(0%)	0(0%)	0(0%)
The quality of educational programs in the EP	43(82,7%)	9(17,3%)	0(0%)	0(0%)	0(0%)
Teaching methods in general	43(82,7%)	9(17,3%)	0(0%)	0(0%)	0(0%)
Quick response to feedback from teachers on issues of the educational process	41(78,8%)	9(17,3%)	2(3,8%)	0(0%)	0(0%)
Overall quality of teaching	42(80,8%)	9(17,3%)	1(1,9%)	0(0%)	0(0%)
Academic load/requirements for the student	41(78,8%)	9(17,3%)	0(0%)	2(3,8%)	0(0%)
Requirements of teaching staff for students	42(80,8%)	9(17,3%)	0(0%)	1(1,9%)	0(0%)
Information support and explanation before entering the university of the rules of admission and the strategy of the educational program (specialty)	38(73,1%)	13(25%)	1(1,9%)	0(0%)	0(0%)
Informing the requirements in order to successfully complete a given educational program (specialty)	43(82,7%)	8(15,4%)	1(1,9%)	0(0%)	0(0%)
29. The quality of examination materials (tests and examination questions, etc.)	38(73,1%)	11(21,2%)	0(0%)		

30. Objective assessment of knowledge, skills and other educational achievements	39(75%)	12(23,1%)	0(0%)	1(1,9%)	0(0%)
31. Available computer classes	33(63,5%)	13(25%)	3(5,8%)	3(5,8%)	

Available scientific laboratories	30(57,7%)	15(28,8%)	3(5,8%)		
Objectivity and fairness of teachers	40(76,9%)	8(15,4%)	3(5,8%)	1(1,9%)	0(0%)
Informing students about courses, educational programs and academic degrees received	42(80,8%)	7(13,5%)	2(3,8%)	1(1,9%)	0(0%)
Providing students with hostel accommodation	29(55,8%)	14(26,9%)	3(5,8%)		

Please rate how much you agree:

Statement	Full agree ment	I agree	Partially agree	I do not agree	disagree completely	Didn't answer
The course syllabus was clearly presented	39(75%)	9(17,3%)	4(7,7%)	0(0%)	0(0%)	
Course content is well structured	4(7,7%)	9(17,3%)	3(5,8%)	0(0%)	0(0%)	
Key terms are sufficiently explained	40(76,9%)	10(19,2%)	2(3,8%)	0(0%)	0(0%)	
The material proposed by the teacher is relevant and reflects the latest achievements of science and practice	39(75%)	8(15,4%)	4(7,7%)	1(1,9%)	0(0%)	
The teacher uses effective teaching methods	38(73,1%)	9(17,3%)	5(9,6%)	0(0%)	0(0%)	
The teacher knows the material being taught	39(75%)	11(21,2%)	2(3,8%)	0(0%)	0(0%)	

The teacher's presentation is clear	41(78,8%)	8(15,4%)	3(5,8%)	0(0%)	0(0%)	
The teacher presents the material in an interesting way	37(71,2%)	8(15,4%)	6(11,5%)	1(1,9%)	0(0%)	
Objectivity in assessing knowledge, skills and other educational achievements	35(67,3%)	13(25%)	4(7,7%)	0(0%)	0(0%)	

Timely assessment of students' educational achievements	35(67,3%)	14(26,9%)	3(5,8%)	0(0%)	0(0%)	
The teacher meets your requirements and expectations professional and personal development	37(71,2%)	9(17,3%)	6(11,5%)	0(0%)	0(0%)	
The teacher stimulates student activity	37(71,2%)	13(25%)	2(3,8%)	0(0%)	0(0%)	
The teacher stimulates students' creative thinking	33(63,2%)	14(26,9%)	4(7,7%)	1(1,9%)	0(0%)	
The appearance and manners of the teacher are adequate	39(75%)	10(19,2%)	3(5,8%)	0(0%)	0(0%)	
The teacher shows a positive attitude towards students	34(65,4%)	14(26,9%)	4(7,7%)	0(0%)	0(0%)	
The system for assessing educational achievements (seminars, tests, questionnaires, etc.) reflects the content of the course	37(71,2%)	11(21,2%)	3(5,8%)	1(1,9%)	0(0%)	
The assessment criteria used by the teacher are clear and accessible	37(71,2%)	11(21,2%)	4(7,7%)	0(0%)	0(0%)	
The teacher objectively evaluates student achievements	32(61,5%)	16(30,8%)	4(7,7%)	0(0%)	0(0%)	
The teacher speaks professional language	35(67,3%)	15(28,8%)	2(3,8%)	0(0%)	0(0%)	

The organization of education provides sufficient opportunity for sports and other leisure activities	31(59,6%)	16(30,8%)	5(9,6%)	0(0%)	0(0%)	
Facilities and equipment for students are safe, comfortable and modern	30(57,7%)	13(25%)	9(17,3%)	0(0%)	0(0%)	
The library is well equipped and has a sufficient fund of scientific, educational and methodological literature	33(63,2%)	17(32,7%)	1(1,9%)	1(1,9%)	0(0%)	
Equal opportunities for mastering EP and personal development are provided to all students	34(65,4%)	15(28,8%)	3(5,8%)	0(0%)	0(0%)	

Other concerns regarding teaching quality:

I am completely satisfied with everything

No problems

Additional space to relax with fellow students or complete group projects. More lighting in the hallway

A Chinese teacher must respect the chain of command

Everything is fine

Water coolers