



«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 committee  
for compliance with the requirements of standards of specialised accreditation of  
educational programmes "5B010900 Mathematics", "5B011000 Physics",  
"6M011000 Physics", "6M060100 Mathematics" RSE on REU "West Kazakhstan State  
University named after M. Utemisov" MES RK from 24 to 26 of April 2019.**

Uralsk

April 26, 2019

**INDEPENDENT AGENCY of ACCREDITATION AND RATING**  
**External expert committee**

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



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## CONTENTS

(I)	LIST OF SYMBOLS AND ABBREVIATIONS.....	4
(II)	INTRODUCTION .....	5
(III)	REPRESENTATION OF EDUCATION ORGANISATION .....	6
(IV)	DESCRIPTION OF PREVIOUS ACCREDITATION PROCEDURE.....	8
(V)	DESCRIPTION OF EEC VISIT.....	8
(VI)	COMPLIANCE WITH SPECIALISED ACCREDITATION STANDARDS.....	11
	6.1 Standard "Management of the educational programmeme".....	11
	6.2 "Information Management and Reporting" standard.....	13
	6.3 Standard "Development and approval of the educational programmeme".....	16
	6.4 Standard "Continuous monitoring and periodic evaluation educational programmemes ".....	20
	6.5 Standard "Standard "Student-centered learning, teaching and performance evaluation».....	22
	6.6 Standard "Students".....	25
	6.7 Standard "Teaching staff".....	30
	6.8 Standard "Educational resources and student support systems".....	35
	6.9 Standard «Public Information».....	39
	6.10 Standard "Standards in the context of individual specialties".....	41
(VII)	REVIEW OF STRONG PARTIES / BEST PRACTICES FOR EACH STANDARD.....	43
(VIII)	REVIEW OF RECOMMENDATIONS TO IMPROVE QUALITY BY EACH STANDARD.....	45
	Appendix 1. Evaluation table "SPECIALISED PROFILE PARAMETERS".....	47

## **(I) LIST OF SYMBOLS AND ABBREVIATIONS**

EP - educational programme  
MC - Model Curriculum  
RW- research work  
QMS - quality management system  
RSE - Republican State Enterprise  
REM – on the Rights of Economic management  
Faculty - faculty  
ICT information and communication technology  
Mass media - mass media  
UMC-educational and methodical advice  
UMKD - educational complex of the discipline  
IWST - independent work of the student with the teacher  
IWGSWT - independent work of a graduate student with a teacher  
IWS - independent work of the student  
UNT - Unified National Testing  
CT - Complex Testing  
JSC - Joint Stock Company  
WKO -West Kazakhstan Region  
SRW – Student's research work  
SSW - Student's scientific circles  
EAEA - External assessment of educational achievements  
SAC - State Attestation Commission  
WC - working curriculum  
NISH -Nazarbayev Intellectual School  
IC - Individual Curriculum  
CED-catalog of elective disciplines

## (II) INTRODUCTION

In accordance with the order No. 28-19-OD dated March 19, 2019, the Independent Agency for Accreditation and Rating, from April 24 to April 26, 2019, an external expert commission assessed the compliance of specialised accreditation programmes for educational programmes: 5B010900 - Mathematics, 5B011000 - Physics, 6M060100 - Mathematics and re-accreditation of the programme 6M011000 - Physics of West Kazakhstan State University named after M. Utemisov to standards of specialised accreditation of the IAAR (No. 10-17-OD from February 24, 2017, fifth edition).

The report of the external expert commission (EEC) contains an assessment of compliance with the activities of West Kazakhstan State University named after M. Utemisov in the framework of specialised accreditation to the criteria of the IAAR, recommendations of the EEC for further improvement of the parameters of the specialised profile.

The composition of the EEC:

*Chairman* - Vladimir N. Kosov, Doctor of Physical and Mathematical Sciences, Professor, Director of the Center for Applied Research of the Kazakh National Pedagogical University named after Abay (Almaty)

*Observer* - Niyazova Guliyash Balkenovna, project manager for institutional and specialised accreditation of universities (Nur-Sultan).

*The foreign expert* is Yevgeny Alekseyevich Palkin, professor, Ph.D., laureate of the USSR State Prize, vice-rector for scientific work of the Russian New University (Moscow).

*Foreign expert* - Toshmatov Makhmud Negmatovich, Ph.D., professor, first vice-rector of the Technological University of Tajikistan (Dushanbe).

*National expert* - Berdenov Zharas Galimzhanovich, PhD, and an associate professor of the Department of Physical and Economic Geography of the Eurasian National University named after L.N.Gumilev (Nur-Sultan).

*National expert* - Ainur Gabdulina, Ph.D., Senior Lecturer, Department of History of Kazakhstan, Kazakh Agrotechnical University named after S. Seifullin (Nur-Sultan).

*National expert* - Kamkin Victor Alexandrovich, PhD, associate professor of the department of agrotechnology at Pavlodar State University named after S.Toraigyrov (Pavlodar)

*The national expert* is Movkebaeva Galiya Akhmetvalievna, Doctor of History, Professor of the Department of International Relations and World Economy of the Kazakh National University named after Al-Farabi (Almaty).

*National expert* - Myasnikova Lyudmila Nikolaevna, Ph.D., associate professor of Aktobe Regional State University named after K.Zhubanova (Aktobe)

*National expert* - Saparova Yulduz Azimkhanovna, Ph.D., associate professor of South Kazakhstan State University named after M.Auezov (Shymkent)

*The employer* is Abulkairova Aigul Kuspanovna, head of the human capital development department of NCE Atameken of the West Kazakhstan region (Uralsk)

*The employer* is Safullin Yeldos Nabiolliyevich, deputy director for educational and methodical work of the Institute for Advanced Studies of Pedagogical Employees of the NCE «Өрлеу» in the West Kazakhstan region (Uralsk).

*Student* - Aydinova Əsemgul Ədilzhankyzy, 3-year student of the College of Music named after Kurmangazy (Uralsk).

*Student* - Kuneev Musa Sansvayuly, 4-year student of EP "5B070800 Oil and Gas Business" of the West Kazakhstan Agrotechnical University named after Zhangirhan (Uralsk).

*Student* - Salhaeva Ədemi Zhanatkyzy, 2nd year student of EP "5B020300 History" of the West Kazakhstan Innovation and Technology University (Uralsk)

*Student* - Temirbolat Gulzhaynar Daurenkyzy, studying 3 courses of EP "5B060200 Informatics" (Uralsk).

### **(III) REPRESENTATION OF THE EDUCATION ORGANISATION**

The Republican state enterprise on the right of economic management "West Kazakhstan State University named after M. Utemisov" is one of the oldest universities in Kazakhstan. Its history begins in 1932, when, in the city of Uralsk, the decision of Kazraykom created the second pedagogical university in the republic after the Kazakh Pedagogical Institute, which was named after the USSR Deputy People's Commissar for Education M.N. Pokrovsky. In 1937, it was renamed the Ural Kazakh Pedagogical Institute named after A.S. Pushkin.

In 1982, in honor of the 50th anniversary of the activities, for great services in the training of teachers of the country, the Ural Pedagogical Institute was awarded the Order of the Badge of Honor.

In 1996, the Ural Pedagogical Institute was transformed into the West Kazakhstan Humanitarian University. On February 14, 2000, the Government of the Republic of Kazakhstan established the West Kazakhstan State University, which united three universities in the West Kazakhstan region: West Kazakhstan Humanitarian University. A.S. Pushkin, West Kazakhstan Agrarian University and the Institute of Arts named after Dauletkey. On November 5, 2002, the WKSU is reorganized through the separation of the West Kazakhstan Agrarian Technical University from it. May 30, 2003, by the Decree of the Government of the Republic of Kazakhstan No. 497, the West Kazakhstan State University is given the name of Makhambet Utemisov.

Educational activities WKSU in accordance with the state license number 12019665, issued by the Committee on the Control of Education and Science of the Republic of Kazakhstan on 12/11/2012 and the Charter of the university, approved by order of the Committee of State Property and Privatization MF RK No. 819 of August 23, 2012

In the structure of WKSU them. M. Utemisov includes 6 faculties (natural and geographical; physical and mathematical; pedagogical; philological; history, economics and law; culture and art), as well as a scientific library, editorial and publishing center, information technology center, testing laboratory of ecology and biogeochemistry and a number of other divisions: the institute "Ruhani zagryu", the institute of multilingualism, the center of internationalization, the center of advanced training, the center of sociological research, the center of pre-university training, the center of career, the center of distance onnogo training, student service center, department of double-diploma education, etc.

The university's faculties have 22 departments that train personnel in 52 educational undergraduate programmes and 24 educational programmes of the magistracy. Currently, the university has more than 5.5 thousand students and undergraduates, including the programme "Serpin".

ZKGU implements the principle of corporate governance through the expansion of the functions of collegial bodies - the Supervisory Board and the Academic Council. The principle of information openness of the university is implemented - the university is widely represented in the information space of the region and the republic. ZKGU effectively operates a feedback mechanism - regular surveys of students and teachers, school graduates and employers are held, the rector's blog, a helpline, questions and suggestions boxes for the management of the ZKGU, etc. are in place.

The university has a modern scientific and educational laboratory base, a developed social infrastructure. On the balance of the university there are 7 educational buildings, 3 student dormitories, 2 sports halls, 2 open sports grounds, a recreation complex, an agrobiostation. The testing laboratory of ecology and biogeochemistry is accredited and registered in the register of the State system of technical regulation of the Republic of Kazakhstan. In the educational buildings there are 243 classrooms, there are 22 educational laboratories, 26 teaching rooms, computer labs.

The university is constantly updating the park of computer and interactive equipment - there are more than a thousand computers connected to a local network, access to the Internet is

provided at a speed of 120 Mbit / s, in all educational buildings of the university access to Wi-Fi is provided.

For informational support of the educational process at the university, the AIS "Makhambet" and "Platonus" are used. The learning management system "Moodle" provides educational and methodical work of the Center for Distance Learning and departments.

The scientific library of WKSU has more than a million units of storage, includes ten reading rooms.

International cooperation of the University is carried out on the basis of 140 contracts with foreign and domestic universities, research centers and other scientific organizations in Europe, Asia, America, CIS countries. The geography of academic mobility of teachers and students covers the USA, Germany, Italy, Poland, Great Britain, India, South Korea, Russia, Belarus, Ukraine. The university takes part in international programmes DAAD, GLOBAL Ugrade, ERASMUS MUNDUS.

The system of social partnership WKSU is built on active interaction with consumers. The Alumni Association and the Council of Employers have been established. More than 800 agreements on practical training have been concluded, polls have been conducted of the heads of the practice bases; the content of educational programmes is updated with the recommendations of employers.

Activities WKSU named after M. Utemisova received wide recognition both in Kazakhstan and abroad. This is evidenced by the prestigious international awards received by the university - the SPI Gold Medal, the Euro Education 2006: Integration of European Experience, the European Quality, United Europe, the Leader of the National Economy and others.

Innovative activity of the university was noted in four international forums. At the III Kazakhstan International Exhibition "Education and Science in the XXI Century" WKSU was awarded diplomas "For the development and implementation of integrated educational programmes" and "For the best automated university management system." At the IV Kazakhstan International Exhibition "Education and Science of the XXI Century," the university was awarded a diploma "For the best university publication."

The University was one of the first in Kazakhstan to sign the Bologna Declaration and restructured the educational process in accordance with the requirements of the loan technology.

Confirmation of compliance ZKGU them. M. Utemisov's high modern requirements for the quality of education was the successful completion of institutional and specialised accreditations conducted by reputable foreign and domestic accreditation agencies.

In 2010, the university passed institutional accreditation according to international standards in the NMES RK. In 2012, the university passed the international accreditation of 11 educational programmes in the Russian independent agency AQCECD. In 2013, the WKSU successfully passed the state certification, as well as the accreditation of three educational programmes in the German agency ACQUIN. In 2014, the Independent Agency for Accreditation and ZKGU Rating passed the next institutional accreditation in 2014, and in 2015 and 2017 - specialised accreditation of 71 educational programmes.

In the National Ranking of Universities of the Republic of Kazakhstan in 2015, WKSU was ranked 9th. In the National ranking of specialties of the IAAR 2016, more than ten higher education institutions of the university took quite high places.

In the General ranking of universities in 2017 of the Republican rating agency WKSU ranked 25th. In the National ranking of universities RK-2018, conducted by the IAAR, the university received 11th place, in the direction of "Education" - 10th place, in the direction of "Musical Art" - 2nd place. According to the data of the International Rating Agency Webometrics Ranking of World Universities, the university's website ranked 18th in the ranking of university websites.

In the rating of JSC "Center for the Development of Labor Resources" in terms of demand for and employment of graduates of WKSU ranked 12th in the list of 101 universities and entered the TOP-20.

Training in the accredited EP 5B010900 - Mathematics and 6M060100 - Mathematics is carried out by the Department of Mathematics. Personnel training on accredited EP 5B011000 - Physics and 6M011000 - Physics is carried out by the Department of Physics. The chairs of mathematics and physics are structural divisions of the Faculty of Physics and Mathematics.

Training is conducted in full-time (full-time) and distance learning for undergraduate and full-time for graduate. Training is conducted in Kazakh, Russian and English.

According to the approved staff list, the total number of teaching staff of the Department of Mathematics is 14 people, the number of full-time teachers is 12, the number of teachers with scientific degrees is 6 (all of them are full-time). The number of teaching staff of the Department of Physics is 11, the number of full time teachers is 10, the number of full time teachers with advanced degrees is 5. The share of teachers with advanced degrees and titles is 50% of the number of full time teachers. In both departments, 80% of teachers can conduct classes in the state language, 60% of teachers can teach in English.

Currently, the contingent of students is:

- according to EP 5B010900 - 189 students are enrolled in full-time mathematics, including 84 under the state educational grant; in correspondence form - 69 students, of which 44 students are trained in distance learning;

- according to EP 5V011000 - 164 students are studying full-time physics, including 126 under the state educational grant; by correspondence - 30 students, of which 13 students are trained in distance learning;

- according to EP 6M011000 - 14 undergraduates are studying full-time physics, including 12 under the state educational grant;

- according to EP 6M060100 - 2 undergraduates are studying full-time mathematics, including 2 under the state educational grant.

Employment of graduates in 2018 according to the accredited EP cluster was: EP 5V010900 - Mathematics - 97.1%; EP 5B011000 - Physics - 83.6%; 6M011000 - Physics - 100%.

International and national academic mobility in an accredited EP is implemented with such universities as the University named after Casimir the Great (Bydgoszcz, Poland), Kalmyts State University named after B.G.Gorodovikova (Elista, RF), Kyzylorda State University named after Korkyt Ata, Aktobe Regional State University named after K.Zhubanov, Caspian State University of Technologies and Engineering named after Sh.Esenov.

Research project: "Improving scientific and methodological approaches to elective courses in the content of teacher training in natural sciences" (from 2019-2021, budget: 1 million tenge).

#### **(IV) DESCRIPTION OF PREVIOUS ACCREDITATION PROCEDURE**

The educational programme "6M011000 Physics" is undergoing the procedure of re-accreditation to the IAAR, since in 2014, she was accredited to the IAAR for a period of 5 years.

The educational programmes "5B010900 Mathematics", "5B011000 Physics" and "6M060100 Mathematics" are for the first time accredited to the IAAR.

#### **(V) DESCRIPTION OF THE EEC VISIT**

The visit of the external expert committee to the WKSU was carried out on the basis of the approved and previously agreed programme of the visit of the expert committee on specialised accreditation of the West Kazakhstan State University named after M. Utemisov in the period from 24 to 26 April 2019.

In order to coordinate the work of the EEC 24.04.2019 an orientation meeting was held during which powers were distributed among the members of the commission, the schedule of the visit was clarified, and agreement was reached on the choice of examination methods.

In order to obtain objective information on the evaluation of the university, the members of the EEC used such methods as visual inspection, observation, interviewing employees of various departments, teachers, students, graduates and employers, survey of faculty members, students.

In accordance with the requirements of the standards, the visit programme covered meetings with the rector, vice-rectors, heads of departments, deans, heads of university departments, teachers, students, graduates, employers and employees from various departments, interviewing and questioning teachers and students. In total, 168 people took part in the meetings (Table 1).

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

Category of participants	Amount
Rector	1
Vice Rector	3
Heads of departments	23
Faculty Deans	6
Heads of Chairs	5
Teachers	20
Students	23
Graduates	55
Employers	32
Total	168

During the visual inspection, the EEC members familiarized themselves with the state of the material and technical base, visited faculties and departments that implement accredited educational programmes, the university museum, the research library, educational laboratory rooms, specialised audiences: a fund of rare publications, the Gerbarny Fund, a fitness center, and environmental laboratories and biogeochemistry, hostel number 2, laboratories in mechanics, molecular physics, electricity and magnetism, optics, atomic physics, methods of teaching physics.

Events planned during the visit of the EEC IAAR contributed to familiarizing experts with the bases of practice EP 5B010900 - Mathematics, 5B011000 - Physics, 6M011000 - Physics and 6M060100 - Mathematics "Nazarbayev Intellectual School of Physics and Mathematics of Uralsk", "Palace of Schoolchildren and Youth ( astronomical observatory, planetarium) "and" KazIITU. Kazakhstan University of Innovation and Telecommunication Systems. A branch of the Department of Mathematics and Physics operates on the basis of the "Nazarbayev Intellectual School of Physics and Mathematics, Uralsk", which was visited during the visit of the EEC IAAR.

Table 2 - Information on training sessions visited by members of the EEC

Date, time, audience	Discipline subject matter	Full name of the teacher	Specialty, course, number of students
04/25/2019 9.00, aud. 306, main building	"Optics", practice, the topic "Energy, momentum and mass of the photon. Photoeffect	Senior teacher, master of pedagogical sciences Iskalieva A.U.	5B011000 - Physics, 2nd year, 9 students
04/25/2019 9.00, aud. 304, main building	"Optics", practice, the topic "Energy, momentum and mass of a photon. Photo	senior teacher Imangalieva B.S.	5B011000 - Physics, 2nd year, 17 students

	Effect		
04/25/2019 10.00, aud. 301, main building	“The theory of functions of a complex variable”, lecture topic “Residuis”	Ph.D., associate professor Ulanov B.V.	5B010900 - Mathematics, 3 year, 32 students
04/25/2019 11.00, aud. 215, main building	“Analytical geometry”, lecture, topic “Main tasks for a straight line and a plane”	senior teacher Orlova L.G.	5B010900 - Mathematics, 1 year, 4 students

After attending classes by members of the EEC, the course of the classes, students' notes, compliance with the syllabus topic, quality and methods of teaching were analyzed.

Open practical lesson "Energy, momentum and mass of the photon. Photoeffect" in the discipline "Optics" for the 2nd year students of the specialty "5B011000 - Physics" was conducted in English. Senior teacher Iskalieva A.U. Department of Physics demonstrated a high scientific and methodological potential, used the techniques of CLIL (Content and Language Integrated Learning) technology, which in the national methodology was called "subject-language integrated learning."

Open practical lesson "Energy, impulse and photon mass." A photo effect on the subject "Optics" for students of the 2nd year of the specialty "5B011000 - Physics" was not conducted traditionally. Senior teacher Imangalieva B.S. Department of Physics has demonstrated a high scientific and methodological potential, used the group method with the preliminary activation of students' knowledge. The teacher organically used the technical means (interactive whiteboard) and various techniques such as Bloom-taxonomy, fish-boun, synquain.

The open lecture lesson "Residuis" on the subject "The theory of functions of a complex variable" for the 3rd year students of the specialty 5B010900 - Mathematics was conducted in English in the traditional form. The head of the Department of Mathematics, Associate Professor Ulanov B.V. did not apply interactive teaching methods using technical means.

The open lecture lesson "Basic tasks for a straight line and a plane" in the discipline "Analytical geometry" for the 1st year students of the specialty "5B010900 - Mathematics" corresponds to the syllabus, the content and organization of work are well prepared. Senior teacher Orlova L.G. Department of Mathematics has demonstrated a high scientific and methodological potential, used the methods of securing the material with explanations, the sequential transition from tasks under the supervision of a teacher to self-fulfillment.

In accordance with the accreditation procedure, a survey of teachers and students was conducted.

External experts have requested and analyzed the working documentation of the university. Along with this, the experts studied the university's Internet positioning through the official website of the university <https://wksu.kz>.

All conditions were created for the work of the EEC, access to all necessary information resources was organized. On the part of the team of the UKSU WKSU named after M. Utemisov, the presence of all the persons indicated in the programme of the visit was ensured, in compliance with the established time.

In the framework of the planned programme, recommendations for improving the accredited educational programmes of the West Kazakhstan State University. M. Utemisov, developed by the EEC on the basis of the results of the examination, were presented at a meeting with the management of 04.26.2019.

## **(VI) COMPLIANCE WITH SPECIALISED ACCREDITATION STANDARDS**

### ***6.1 Standard "Management of the educational programme"***

#### ***The evidence part.***

Academic activities WKSU named after M. Utemisov is based on the main regulatory educational documents of the MES RK.

Implementation and development of educational programmes being accredited (EP) 5B010900 - Mathematics, 5B011000 - Physics, 6M011000 - Physics, 6M060100 - Mathematics is determined by the mission, the development strategy of the university, as well as the development plans of the EP.

The mission of the university is the preservation and enhancement of the traditions of one of the oldest universities in Kazakhstan, based on Eurasian ideas of intercultural dialogue and national harmony, allowing WKSU named after M. Utemisov be the center of modernization of the region. Training of highly qualified specialists using advanced learning technologies and modern educational infrastructure, the accumulation and dissemination of humanitarian, natural-scientific and technical knowledge.

The strategic goal and strategic tasks of the faculty correspond to the mission of the University, determined on the basis of the direction of the State Educational Policy of the Republic of Kazakhstan and the University Development Programme, and correspond to the goals and objectives of the university. The main strategic goal of the faculty: "Carrying out activities in the field of higher and postgraduate education based on the integration of science, education and production, capable of providing high quality education and sustainable development of the university."

The mission corresponds to the current management system, the Policy in the field of ensuring the quality of education. The mission, goals and objectives for the development of the university were based on the mission, goals and objectives of the national education system set forth in the Laws of the Republic of Kazakhstan "On Education" and "On Science", "Strategies for Industrial-Innovative Development of the Republic of Kazakhstan", "Strategic Plan of the MES RK".

Management of the educational process through the management of individual educational programmes. This is due to the regulatory requirements for the organization of education - SCSE for EP; typical curriculum disciplines. The faculty of the university makes proposals for developers of state educational standards, the departments have their representatives in the republican educational-methodical councils (ROMS).

The main educational and methodological documents developed by the departments of EP include: working curricula; the schedule of the educational process; working training programmes; educational and methodical complexes of disciplines, including Syllabus; catalog of elective disciplines EP. The university provides an annual review of the content of curricula and programmes, taking into account the interests of employers, while taking into account the experience of leading foreign and Kazakhstan universities. Evaluation of the effectiveness of the educational process, performance, quality of knowledge is also carried out in the context of programmes. Considered and approved at the meeting of the UMC Faculty No. 1 of 12.09.2018.

The training of teachers of physics and mathematics is traditional for the faculty. The first admission to the magistracy on the EP 6M060100 - Mathematics was held in 2004, on the EP 6M011000 - Physics in 2011.

The undergraduate and graduate programmes are designed to meet the needs of employers and the credit system introduced at the university.

The undergraduate and graduate programmes are developed in accordance with the strategic goals and objectives of the faculty. In order to implement EP, infrastructure is being improved, new educational and information technologies are being introduced, systematic communication with employers is being carried out to concretize their needs. An analysis of existing EPs is carried out annually in order to adjust them, taking into account the experience of

the teaching staff and the opinions of students. The content of the study programme takes into account the results of theses and dissertations. The most significant of them are included in the content of education for the following years.

An accessible educational resource environment has been created for training in all accredited EPs, including computer equipment, licensed software, educational and scientific laboratories, computer classes, reading rooms, a book fund, a fund of digital learning materials, etc. Determining the need for equipment, literature and software is carried out by the head of the department, on the basis of whose applications the corresponding resources are procured. Documents regulating the management of educational activities at the department are formed in accordance with the nomenclature of cases.

#### Analytical part

The EEC IAAR conducted meetings, conversations and interviews with the rector, vice-rectors, directors of institutes, heads of departments, heads of departments, students, teaching staff, representatives of employers' organizations and graduates, as well as carrying out questioning of teaching staff and students, detailed knowledge of the university's educational infrastructure, materially -technical and information-methodical resources and the necessary documents notes the following.

1. ZKGU them. M. Utemisova has a published quality assurance policy, in which the key role is played by the interaction between teaching, research and training, as well as between the business community and the university. This is evidenced by the fact that the strategic plan with the mission and vision included in it is posted on the University website (<https://wksu.kz/ru/mwksuabout/20-1catuni/692-strategiya-i-missiya>), the stands of the Faculty of Physics and Mathematics, the departments of mathematics and physics, i.e. in public places to ensure familiarity with the documents of teaching staff, students, employers.

2. The EP's management ensures the transparency of the development of the EP's development plan and its focus on meeting the needs of the state, employers, stakeholders and students. This is evidenced by the existence of plans for the development of accredited EPs on the pages of the departments (for example, the Department of Mathematics <https://phim.wksu.kz/ru/category/24/109>), and also a stable contingent of students.

3. The administration of EP attracts employers, students and teaching staff to formulate a plan for the development of EP. At the Faculty of Physics and Mathematics there is an Academic Council on EP, in which employers, students and teaching staff participate on an ongoing basis. The composition was approved by the Vice-Rector for educational and methodical work 07/09/2016. Joint activities of the departments and bases of practice is aimed at the implementation of communication of education and production. According to the results of the practice, surveys of the managers of the practice bases, the content of the EP is systematically updated, new educational trajectories are being developed.

4. The management of the EP demonstrated the successful functioning of the quality assurance system of the EP, including its design, management and monitoring, their improvement, making decisions based on facts. To maintain the effectiveness of educational programmes, a permanent activity is carried out to further improve the content of EP (development of elective disciplines, improvement of the practical component, taking into account the needs of the market); development of the modular principle of the formation of the EP; improvement of educational and methodological complexes of EP and disciplines on the basis of the National Qualifications Framework, taking into account the Dublin descriptors and the European Qualifications Framework; development and improvement of students' individual plans; improvement and development of forms and methods of IWSWT and IWS , etc., which is reflected in the Plans of development of educational programmes of EP. The means of collecting, accumulating and analyzing information about the implementation of educational programmes at WKSU, about its internal and external environment are the mechanism of sociological monitoring at the university; regular meetings of university management with students; the study of written appeals of students to the leadership of the university; university

website, which includes the "rector's blog" and the complaint book; ACS "Plato" and "Makhambet"; questionnaire "The teacher through the eyes of students."

4. In spite of the fact that the administration of EP demonstrated the management of innovations within the framework of EP, however, the commission came to the conclusion that the analysis and implementation of innovative proposals from graduates of recent years should be improved.

5. The management of EP 5B011000 - Physics has shown competent risk management, as evidenced by the 2nd place occupied in the rating of NCE Atameken and 5th place in the rating of the IAAR in 2018 (11 universities participated in this programme). Experts from the EEC note the need to revise the development plan for EP 5B010900 - Mathematics, in the area of introducing innovative proposals, due to the fact that in 2018 NCE Atameken and the IAAR indicated EP ranked 11th and 13th, respectively.

6. A survey of faculty members conducted during the visit of the EEC IAAR showed that

- a reflection of the mission and strategy of the university in innovation programmes: very good and good - 98.9%, relatively poor - 1.1%;
- satisfaction of the needs of the teaching staff with an EP content: very good and good - 97.8%, relatively poor - 1.1%, poor - 1.1%;
- involvement of teaching staff in the process of making managerial and strategic decisions: very good and good - 96.8%, relatively bad - 3.2%.

Strengths / Best Practices

- a quality policy has been published, based on a unique combination of European experimentation and Asian systematism;
- transparency of development of the development plan and the management system of the EP;
- Management of risks;
- participation of stakeholders in the collegiate bodies of administration of the EP, shown by the work of the academic council of the Faculty of Physics and Mathematics;
- openness and accessibility of the EP manual in the online mode through the website wksu.kz for students, teaching staff, employers and other interested persons.

EEC recommendations

Improve the analysis and management of innovations in the framework of EP "5B010900 Mathematics", including the introduction of innovative proposals.

The conclusions of the EEC according to the standard "Management of the educational programme" have strong - 6, satisfactory - 11, suggesting improvement - 0.

## ***6.2 "Information Management and Reporting" standard***

### ***The evidence part***

Systems for collecting, analyzing and managing information in WKSU are an integral part of the planning system, quality system, financial activity, process approach, management of individual educational programmes.

The current plans for WKSU are given in the Planning Matrix, for example, a university work plan; the work plan of the Academic Council; university study plan; University research plan; the work plan of the center for academic affairs and the Bologna process, etc. In total, the Matrix contains up to seventy names of types of planning, it also contains indications of the grounds that underlie the planning, preparation periods and actions, forms of completion and approval. The effectiveness of the planned activities is assessed by the university management based on the reports of the departments. In all departments of the university, records management is carried out in accordance with the approved nomenclature of cases, the safety and archiving of documents is ensured.

QMS planning includes setting goals in the field of quality, planning activities to achieve them. Operational objectives and quality activities are based on the strategic goals of the university. The completeness, timeliness and effectiveness of the implementation of the Quality

Plan activities related to the activities of individual units are controlled by the heads of departments. Systematic internal audits allow for the assessment of the QMS.

A detailed description of the sequence and interaction of the processes carried out at the university is reflected in the process maps, where responsibilities, responsibilities, input and output data, resources, and process monitoring methods necessary to ensure the maximum degree of effectiveness and efficiency of processes are indicated. In particular, educational and methodical work has developed maps of processes that are closely related, such as planning the educational process, holding lectures, organizing and monitoring studies, organizing and conducting practice, assisting in the employment of graduates and others.

The results of the collection and analysis of university information on the results of recruitment, performance, contingent movement, number of graduates, financial resources, staffing, number of publications, travel, contracts with foreign universities, etc., are widely used. Council, at the request of the MES RK, etc. The university provides an annual review of the content of curricula and programmes, taking into account the interests of employers, while taking into account the experience of leading foreign and Kazakhstan universities.

WKSU provides transparency of information about the processes of audit of the quality of education and their results, as well as identifies the status of the results of measurement and analysis of processes. Records established for the provision of evidence of compliance with the established requirements for the performance of the quality assurance system are accessible (published in the university accounting documents, posted on the university website) and provided with identification signs. Established a procedure for managing records (identification, storage, protection, access, terms of use, location). The management of WKSU and collegial management bodies - the Academic Council, faculty councils, etc. make decisions based on facts, analysis of information of structural units, data obtained from the results of the survey, monitoring of the educational process and other sources.

For the purpose of identifying and forecasting risks, an analysis of the external and internal environment is provided, in particular: the material and technical base, staffing, the level of development of social partnership, international cooperation, career guidance and recruitment, the competitive environment and employment, etc. Based on the risk assessment results, decisions are made on personnel issues, on career guidance, development of the material and technical base, on changes and additions in the development plan of the EP.

EP "5B010900 Mathematician" and "5B011000 Physics" are consistently in high demand, employment of graduates is more than 90%. In connection with the implementation of the programme of scientific and technological development of the Republic of Kazakhstan, there is a high demand for specialists in the field of physics and mathematics, teachers of secondary schools. Also has a stable demand EP "6M011000 Physics." The "6M060100 Mathematician" programme is less popular, but it is important for the implementation of the personnel policy of the region, the growth of young scientific and pedagogical personnel.

Annually for students of the 1st course of the EP "5B010900 Mathematics", "5B011000 Physics" catalogs of elective disciplines (QED) are created. The main tools for the formation of QED are: questioning and surveys of managers of practices, employers; surveys and surveys of senior students; the work of members of the academic council of the faculty and the Alumni Association.

Based on the requests of employers and the proposals of senior students, specializations are being developed under the EP "5B010900 Mathematics," 5B011000 Physics ", which also increases the demand for EP.

The scientific library has access to foreign databases of Clarivate Analytics, Springer Link, Scanning, neighboring countries, software (free), "Lan" (2019), to domestic databases with the Republican inter-university electronic library (from 2015 to 2020). free of charge), SI "Library of the First President of the Republic of Kazakhstan - Leader of the Nation" (from 2016, with a period of 5 years free of charge). The Information Technology Center operating at the university

ensures the development of electronic products of teachers, which are in demand in the educational process.

Performers of research, teaching staff and students have open access to the funds of scientific literature. Students can take the necessary literature in the subscription of scientific literature, engage in all reading rooms. Single copies of publications can be ordered through the system of book storage. This is especially important for master's degree programmes.

The main link of the system for collecting and analyzing information are teachers and university staff. They develop all the documentation of the university and the EP, organize the activities of collegial bodies, attract stakeholders to the management of the university, study the external and internal environment and much more, which requires high professional and communication skills.

The requirements for business ethics are contained in the “Code of Conduct”, which, in particular, determines the order of relations with customers, with suppliers, with third parties. An important factor is the orientation to the values of the university: respect for cultural traditions, honesty, trust, openness, partnership, teamwork.

In accordance with the Law of the Republic of Kazakhstan “On personal data and their protection”, agreements on the processing of personal data are drawn up with all employees, teaching staff and students of WKSU.

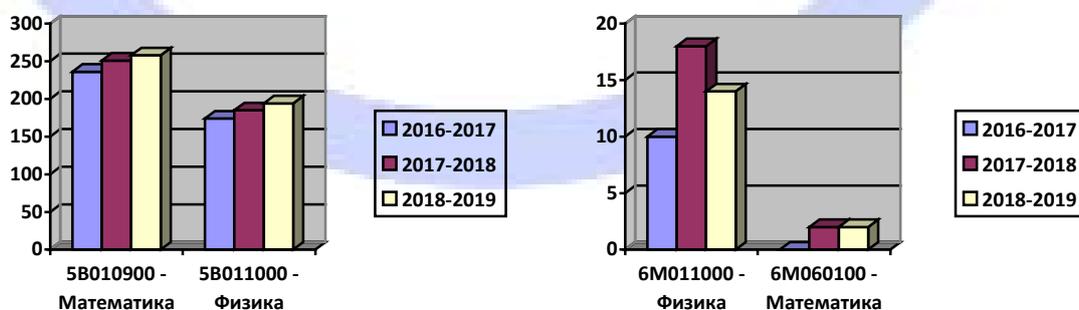
### ***Analytical part***

The analysis of accredited EPs according to this standard allows us to draw the following conclusions.

1. The university operates a center for sociological research, which is engaged in collecting and analyzing information for the effective implementation of the EP management process, which is reflected in the data of the automated information system and in the documented records of structural units. However, at the meeting of EEC experts with the heads of departments, it was shown that the information collected by the center for sociological research covers issues common to the university, and not to a particular EP.

2. Information analyzed by the administration of the EP takes into account the availability of educational resources and support systems for students. This is evidenced by the creation of the official website of the university (<http://wksu.kz/>), the automated information system "Makhambet" (<http://e-portal.wksu.kz/ru>), distance learning center (<https://moodle.wksu.kz/>), online learning resource (<https://wmoodle.wksu.kz/?lang=kk>), educational resource Plato (<http://platon.wksu.kz/>), by means of which current information is provided in real time.

3. The EP's management demonstrated the growth dynamics of the contingent of undergraduate students (full-time and part-time) according to the accredited EP “5B010900 Mathematics” and “5B011000 Physics”. Experts from the EEC note that a rather small contingent (of 2 in total) students in the “6M060100 Mathematics” EP.



4. A survey of students, conducted during the visit of the EEC IAAR, showed that satisfaction:

- the level of availability and responsiveness of the university management: fully satisfied and partially satisfied - 100%;
- the usefulness of the web site of the organization of education in general and of the faculties in particular: fully satisfied and partially satisfied - 96.1%, partially satisfied - 3.1%;
- informing requirements in order to successfully complete this specialty: fully satisfied and partially satisfied - 100%.

#### Strengths / Best Practices

- the order is determined and information protection is ensured;
- the involvement of students, employees and teaching staff in the process of collecting and analyzing information by a center for sociological research;
- availability of a communication mechanism with students, employees and other stakeholders;
- the growth dynamics of the contingent of students in the accredited EP "5B010900 Mathematics" and "5B011000 Physics";
- availability of educational resources and support systems for students through their own development on the site wksu.kz.

#### EEC recommendations

Develop and implement a long-term enrollment plan for students in EP "6M060100 Mathematics".

The conclusions of the EEC according to the "Information Management and Reporting" standard are strong - 9, satisfactory - 8, suggesting improvement - 0.

### ***6.3. Standard "Development and approval of the educational programme"***

#### ***The evidence part***

The process and procedure for the development and approval of accredited undergraduate undergraduate and graduate programmes is carried out in accordance with the requirements of SCSE. At the same time, all relevant subjects of the university, faculty members, departments of mathematics and physics, the faculty of physics and mathematics, departments, etc., are involved. Implementation mechanisms are open and transparent, decision making is collegial. The scientific level and objectives of the study programme are determined in accordance with the requirements, are consistent with the mission of the university and meet the needs of potential consumers. For example, the EP and RUE "5B011000 Physics" and "5B010900 Mathematics" for the 2017-2018 school. the year was developed on the basis of a model curriculum in the specialty of higher education, approved by the order of the MES of the Republic of Kazakhstan No. 425 dated July 5, 2016. At the same time, the actions of the possibility of joint EPs in mathematics and physics with foreign educational organizations and attracting Kazakhstan's research organizations to educational process.

EP management defines the procedures for the development and approval of the EP. The structure of the EP is formed by the university independently on a collegial basis. The university has developed a procedure for approving, periodically reviewing and monitoring EPs and documents regulating this process. Revision and control of accredited EPs takes place annually on the basis of the work of the academic council of the faculty, opinions of employers, students, undergraduates and teachers of secondary schools, graduates and teaching staff of the accredited EPs.

The EP Guidelines develop curricula that provide for the modular study of disciplines in compliance with logical sequence.

The basis of the accredited EP is the following conditions: the completeness of education at each level (bachelor and master); harmonization of curricula and programmes; satisfaction of educational needs of students and employers. Also, the development of the EP takes into account

the need to integrate the needs of the labor market, career guidance with applicants and their further training.

When developing a study programme, it takes into account its focus on training a highly qualified specialist who meets modern requirements: competitiveness, functional literacy, competence (subject, professional, information, etc.). The cycle of general education disciplines is aimed at the development of a general intellectual level. The cycles of basic and major disciplines are aimed at the formation of subject, professional competences, the development of creative potential, increase the level of competitiveness of graduates, the ability to successfully carry out their professional activities based on the acquired knowledge and skills, and personal qualities.

Taking into account the recommended ratio of distribution of credits in ECTS for accredited EPs, they are developed in cycles of general education, basic and major subjects.

The procedures for assessing the quality of the EP are defined and documented by the internal regulatory documents of WKSU them. M. Utemisova (Regulations on the criteria for evaluating educational programmes, educational activities, 04/28/2014).

The model of a graduate, one of the oldest universities of the Republic of Kazakhstan, is represented by all accredited programmes; it is developed by the graduating department on the basis of established traditions and approved by the dean of the Faculty of Physics and Mathematics. The competence model of a graduate of an accredited EP is a set of expected results of education, the achievement of which the student can demonstrate at a particular stage of mastering the main programme or as a set of competencies that each graduate of the EP must master.

Accredited EP undergo internal and external expertise. The internal examination procedure is carried out by leading specialists of the departments, and external specialists are employers, which include directors and leading specialists in physics and mathematics of schools, colleges in the city and region. According to the results of the examination, changes are made in the QED and the WC.

Qualification (academic degree), obtained upon completion of the EP, is determined by the TSP and complies with the current professional standards of the NQF - bachelor, master. Cluster qualification: Bachelor of Education in the specialties "Physics", "Mathematics", Master of Pedagogical Sciences in the EP "Physics" and Master of Natural Sciences in the EP "Mathematics".

The list of disciplines included in the EP, is brought to the attention of students. First-year students and undergraduates are given presentations by the EP adviser at the beginning of their studies (September); students of advanced courses are given presentations at the beginning of the second semester for the next academic year. Based on the choice of students, the learning trajectories are developed by IC (an individual curriculum for each year of study). The IC indicates the subjects being studied, the number of credits, the semester and the full name. teacher. Students sign an IC, which is submitted in triplicate (to the student, the department and to the registrar's office).

The content of the disciplines of EP and IC is developed in accordance with the didactic principles of training. The structure and content of disciplines in mathematics and physics are developed in accordance with the following requirements.

The formation of professional competence corresponds to the content of the disciplines of the methodical cycle and the programme of pedagogical and research practices.

EP disciplines allow students to obtain the necessary knowledge and develop competencies that enable them to carry out professional activities.

The disciplines included in the EP of a bachelor degree, defining the subject and professional training of a graduate, can be divided into cycles:

- disciplines that form the basic knowledge and competencies (in mathematics - elementary mathematics, mathematical analysis, algebra and number theory, analytical geometry, in physics

- mechanics, molecular physics, electricity and magnetism, optics, physics of the atom and the atomic nucleus);

- disciplines, deepening, extending and generalizing knowledge on the subject (in mathematics - probability theory and mathematical statistics, differential equations, differential geometry and topology, in physics - classical mechanics, electrodynamics and special relativity, quantum mechanics, statistical physics, electronic theory of matter, physical picture of the world);

- disciplines of the methodical cycle (methods of teaching physics and mathematics, workshops on problem solving, laboratory workshop).

The disciplines included in the EP of Magistracy take into account the undergraduate programmes, are aimed at preparing the master in accordance with the level of the NQF and the conditions of future professional activity. The disciplines of the study programme "6M011000 Physics" which determine subject preparation: "Actual problems of modern physics", "Electromagnetic phenomena", "Development of physical science and scientific and technical progress. Nanotechnology "; professional training "Astronomy of the 21st century and the physical picture of the world in the content of education in high school and university", "Organization of the undergraduate's research work" and others. The disciplines of the Master's programme "6M060100 Mathematics" defining the subject training "Fundamental questions of algebra, geometry and logic", "Practicum of solving problems of higher mathematics", "Additional chapters of functional analysis", "Differential calculus in a normalized space", "The theory of functions of a complex variable", "The organization of research work of a student" and others.

Taking into account the views of employers, analysis of the progress and results of teaching practice, the results of the SCC, changes are made to the structure and content of QED.

Cooperation of the Faculty of Physics and Mathematics with employers of the city and the region, who are social partners of the Faculty (in physics - director of secondary school № 7 V. Protasov; in mathematics - director of lyceum №27 named after M. Mametova UG G., deputy director JSC NCE "Orleu" Safullin EN), passes in the following directions: provision of places for passing pedagogical and pre-diploma practice, state certification commission, lecturing, reviewing scientific works, etc.

From the 2 semester of 2018-2019 The teachers of the educational center "5B011000 Physics" together with the social partner "Regional Center for Children's Technical Creativity", on the basis of which the planetarium functions, introduced elements of dual training in the discipline "Astronomy", which is confirmed by the meeting of the EEC members with the center's employees. At the same time, neither in the report on self-assessment, nor during the visit, the EEC was not provided with information on plans to introduce elements of dual education in EP "5B010900 Mathematics" and "6M060100 Mathematics".

Alumni Association, created by the leadership of the EP, also allows for feedback from consumers. The faculty alumni association includes: Kereeva N. - Director of the Linguistic Gymnasium of the Terektinsky District; Zhumagaliyeva A.G. - Director of school №19; J. Muratova - postgraduate student of the RUDN, Iksebaeva Zh. S. - Phd doctoral student at the LN Gumilyov ENU; Khamzina R.A. - Deputy Director of the region CISO.

The EP includes professional training in accordance with the schedule, in coordination with the practice bases, taking into account the availability of the relevant material base and the qualifications of the practice leaders. Take into account the possibility of using pedagogical practice when writing a thesis.

Students can propose to change the content and structure of EP, select subjects that are not included in the curriculum and QED.

The development of the EP takes into account the complexity of the academic load of students and undergraduates, all types of their educational activities, which are provided in the curriculum, including classroom and independent work, practice, etc. The complexity of the

students' independent work is determined depending on the credit allocated to study the discipline according to WC

The volume of ISW (IMW) and ISWT (IMWT) are fixed by the norms of calculating the pedagogical load of the faculty of the university for the academic year. The teaching staff defines the tasks and objectives of the ISW (IMW), its forms and methods, topics and scope, ensuring the implementation of the EP within the hours set by the WC. Planned types of ISW (IMW), their labor-intensiveness in hours, the form and term of control, the topics of tasks, estimated points are regulated by the teacher in the relevant sections of the syllabus and EMC.

Analysis of educational and methodological documentation showed that the work programmes, EMC consistently reveal the content of the EP.

In the course of implementation of educational disciplines, teaching staff of accredited educational institutions use traditional and innovative methods and methods of teaching.

### *Analytical part*

The analysis of accredited EPs according to this standard allows us to draw the following conclusions.

1. The EP management documents the procedures for the development of the EP and their approval at the institutional level. This is evidenced by the fact that the EP are discussed and discussed at meetings of the departments of mathematics and physics, are coordinated with employers. The final approval of the EP is held at the EMC and the University Academic Council. During the visit of the EEC, the leadership of the EP did not demonstrate the question of joint EPs in mathematics and physics with foreign educational organizations and the involvement of Kazakhstani research organizations in the educational process.

2. In the development of EP participate students, highly qualified teaching staff of the accredited EP and stakeholders. Opinion of students and employers are taken into account according to the results of the survey.

3. The members of the EEC note that the accredited EPs of various levels (bachelor, master) are developed taking into account the succession: deepening and expanding the content of mathematical and physical sciences, increasing attention to current problems of modern, fundamental science and education.

4. The EP's management showed that the developed model of the graduate characterizes a specialist who is able to perform professional functions and specific duties, who is able to successfully interact with people and who strives for self-improvement. The competence model of the graduate becomes the basis for the design of the educational process in the form of a model of training a specialist - bachelor or master

5. The Commission of the EEC notes that a positive moment is the introduction in the current school year of the elements of dual education in EP 5B011000 - Physics. However, the possibility of implementing dual education in the framework of OP 5B010900 - Mathematics has not been shown.

6. The survey of students, conducted during the visit of the EEC of the IAAR, showed that:

- availability for academic counseling: fully satisfied and partially satisfied - 99.2%;
- the level of implementation of these rules and strategies of the EP: fully satisfied and partially satisfied - 100%.
- informing students about courses, educational programmes and academic degrees: fully satisfied and partially satisfied - 100%.

#### Strengths / Best Practices

- Documentation of the procedure for the development of the EP and their approval at the institutional level;

- ensuring compliance of the accredited EPs with established goals, including the expected learning outcomes;

- the presence of the developed models of the graduate of the EP;

- clearly defined qualifications obtained upon completion of the EP;

- determination of the influence of disciplines and professional practices on the formation of learning outcomes;

- the presence in the structure of the OP of various activities corresponding to learning outcomes.

EEC recommendations

To consider the issue of joint EPs in mathematics and physics with foreign educational organizations.

Develop and implement a plan for the introduction of the elements of dual training in SP "5B010900 Mathematics", "6M0601000 Mathematics".

The conclusions of the EEC according to the standard "Development and approval of the educational programme" have strong - 6, satisfactory - 6, suggesting improvement - 0.

#### ***6.4 Standard "Continuous monitoring and periodic evaluation of educational programmes"***

##### ***The evidence part***

Performance analysis of accredited EPs is carried out throughout the entire period of its implementation. In the process of conducting professional practice, the quality of EP is evaluated from the standpoint of the level of mastering theoretical knowledge and skills for their application in the conditions of the educational institution at the place of practical training. The main factors of evaluation are reviews of the managers of the practitioners' databases and reports of students on the results of internships, reviews of external reviewers for graduation works. In connection with updating the content of education in the secondary school of the Republic of Kazakhstan, the results of teaching practice, exchange of views with employers and school teachers, changes were made to the content of methodological training for undergraduate students in physics and mathematics. The features and significance of the modern structure of education and the updated system of monitoring students' achievements are considered. The methodology of criterion assessment organizations and active teaching methods are included in the EMC.

The achievement of the objectives of the EP is also monitored by the results of rating, current control, the results of state examinations and the protection of graduate theses. As a result, changes are made to the specific content of the EP disciplines: changes were made to the content of the elective courses "Physical Picture of the World", "Physics in Problems", and the AESP. Taking into account the results of the SFC, it was advisable to use a teaching aid on the discipline "The function of many variables" in English (Ashekenova A.A. :, head. Zhumagaliyev A.E.). The necessary changes are made to the content and methodological approaches to the study of the discipline "Physics in problems". An example of ensuring the relevance of the taught discipline is the inclusion of the problem "Self-organization of matter. Synergetics "in the content of the discipline" Physical picture of the world "and the development of this topic in the master's thesis" Formation of an integrated system of physical science in the learning process. " In connection with the update of the content of education in the secondary school, changes were made in the teaching of the disciplines "New approaches to learning and teaching", "Methods of teaching mathematics" methodological cycle: the characteristics of the teacher's work in modern conditions and the features of the learning achievement control system (SAS, QS).

The progress of students is analyzed by the results of the control, which is recorded in the rating-examination sheets and transcripts, transcripts, issued by the office-registrar. During the EEC visit, the EP management did not demonstrate the evaluation criteria for educational, pedagogical practice, as well as the assessment of the performance of laboratory and independent

work. All data on the progress of students is stored and processed in the database of the office of the registrar. The load of students is determined in accordance with regulatory documents..

Students of the Faculty of the Faculty of EP are teaching and pedagogical (1st year) and language (2nd and 3rd year), psychological and pedagogical (2nd year), educational and pedagogical (3rd year) and industrial, pre-diploma (4th year) practice. To pass the practice ZKGU named after M. Utemisov signed contracts with schools and enterprises in the region. The cluster practices are based on the secondary school of the city and region (No. 27 Lyceum named after M. Mametova for Physics and Mathematics, Nazarbayev Intellectual School, Lyceum No. 38 named after Aliya Moldagulova, Secondary School No. 1, Grammar School No. 34 named after A. Taymanov school-lyceum number 35).

Changes in the labor market are associated with education reform, updating its content. Most of the disciplines of the EP in accordance with regulatory documents are elective. QED offers a choice for each component of the choice of three disciplines. The specializations "informatics", "English" are used in physics and mathematics in recent years and this is connected with the requests of the regional education administration for small schools and with the introduction of the study of physics in a foreign language, for the implementation of the state programme of education development of the MES RK. In the discipline "Physical picture of the world" for students developed a lecture complex, which selects a course of lectures taking into account the wishes of students.

Highly qualified employers, teaching staff and students are involved in the development and revision of the EP (Protasov V.A., Uteshova G.G., Izmukhambetova SS).

Monitoring the performance of the EP includes the following assessments: internal (mutual visits and questionnaires of faculty members, questionnaires and conversations with students, the conclusion of the expert committee) and external (feedback from employers in charge of professional practice, the chairpersons in the process of final certification of graduates, reviewers for theses and master's theses) .

In this regard, the practice of collegial discussion of the recommendations made, which serve as the basis for taking corrective actions, has proven itself well. Official assessments of external experts are supplemented by the results of sociological surveys of the heads of organizations that have employed university graduates.

The expert commission constantly monitors the work of advisers and teaching staff, attending classes, talking with young teachers and mentors and at a meeting of the department sums up the work. Peer review is taken into account when updating QED and extending contracts with teachers.

Analysis of the effectiveness of the OP is carried out during the entire period of its implementation. In the process of conducting professional practice, the quality of EP is evaluated from the standpoint of the level of mastery of theoretical knowledge and skills for their application in the conditions of the educational institution. The main evaluation criteria are reviews of the managers of the practices and reports of students on the results of internships, reviews of external reviewers for graduation works. Over the past years, the university has received positive feedback on the professional activities of graduates.

#### *Analytical part*

The analysis of accredited EPs according to this standard allows us to draw the following conclusions.

1. The EP management monitors and periodically evaluates the EP in order to achieve the goal and meet the needs of students and society. This is evidenced by the fact that the performance analysis of accredited EPs is carried out during the entire period of its implementation. In connection with updating the content of education in the secondary school of the Republic of Kazakhstan, the results of teaching practice, exchange of views with employers and school teachers, changes were made to the content of methodological training for undergraduate students in physics and mathematics.

2. Analysis of the development plans of the accredited EP, showed that the preparation of bachelors and masters is implemented taking into account the author's and collective scientific and educational achievements, employers' requirements, labor market demands and the development of state programmes of the Republic of Kazakhstan. Experts note that the revision of the content of the MEP and QED occurs annually, taking into account the requirements of the market and the wishes of students, employers. This is evidenced by the presence in the MEP and QED of elective disciplines in English. However, there is a general scale for evaluating students using credit technology in teaching programmes, but there are no clear assessment criteria for completing assignments in practical and laboratory classes.

3. Experts from the EEC note that the progress of students is analyzed according to the results of monitoring at meetings of departments and the council of the Faculty of Physics and Mathematics. All data on the progress of students is stored and processed in the database of the office of the registrar.

4. A survey of students, conducted during the visit of the EEC of the IAAR, showed that:

- the programme of the course was clearly presented: I fully agree and agree - 96.1%;
- the course content is well structured: I completely agree and agree - 97.7%.

#### Strengths / Best Practices

- implementation of monitoring and periodic assessment of EP in accordance with changes in the needs of society and the professional environment;
- ensuring the monitoring and periodic evaluation of the EP for the workload, academic performance and graduation of students;
- consideration of the educational environment and support services and their compliance with the objectives of the EP;
- participation of students, employers, students and teaching staff in the revision of the EP;
  - revision of the content and structure of the EP in view of changes in the labor market, the requirements of employers and the social demand of society.

#### *EEC's recommendations*

*Develop criteria for evaluating all types of educational work of students (practice, laboratory work, all types of independent work of students and undergraduates).*

*The conclusions of the EEC according to the standard "Continuous monitoring and periodic evaluation of educational programmes" have strong - 5, satisfactory - 5, suggesting improvement - 0.*

#### **6.5 Standard "Student-centered learning, teaching and performance evaluation"**

##### ***The evidence part***

WKSU implements a system of student-centered education, which is based on the fact that the student is an active "subject" and not a passive "object" of the educational process. The teacher becomes an assistant, joint responsibility for learning, the learning process is discussed. Students are considered as individuals - their experience, characteristics, perception abilities, interests and needs are taken into account. Students through student self-government take part in the allocation of places in the dormitory, the distribution of vacant grants and nominal scholarships, the organization and control of examination sessions, participation in meetings of collegiate bodies of the university - faculty councils, the Academic Council, etc.

The EP's management adheres to the principle of equal rights for all categories of students in accordance with international documents. In all educational buildings of the university ramps for wheelchairs are installed. The university uses distance learning to fully ensure the organization of the educational process. Students with disabilities have access to the electronic library, EMC, access to the network of educational and information fund with a variety of teaching materials.

The management of EP provides equal opportunities for students, regardless of the language of instruction, to form an individual educational programme. Academic disciplines

within the framework of the EP are developed and maintained in the state, Russian, English languages, which provides equal opportunities for students to form IET, develop the ability to independently solve problems in the field of professional activity, to build experience in solving independent cognitive, communicative, organizational and other problems in future professional activities. At the same time, the administration of the EP did not show the implementation of two-diploma education, both with the universities of Kazakhstan and abroad.

Office registrar WKSU named after M. Utemisova together with advisors registers students in the disciplines and forms their individual curricula. Students have academic freedom in choosing the disciplines of their learning path.

For academic support of students who do not succeed in disciplines that are gaining low ratings, as well as at the request of students who have absences due to illness, for family reasons, teachers of accredited EPs organize additional classes and consultations. Classes are held at a convenient time for teachers and students, the department has a schedule of consultations.

For students with academic backgrounds, additional training is organized - summer semester. For students who have scientific interests, scientific student societies and groups work. For students who have expressed a desire to obtain additional competencies and to study additional credits, in addition to the mandatory ones, classes are organized at the base of the Center for Continuing Education WKSU.

Since 2015, in order to implement the multilingual education programme, multilingual groups have been opened. Teachers have been trained in multilingual education. Teachers are trained to work in multilingual groups - English language courses are organized. In 2016, at the advanced training courses "Intensive English Language Training for Teachers" at the Kazakh National University. Al-Farabi, KarSU named after Buketova 50% of teachers of the departments of physics and mathematics were trained. However, during the visit of the EEC there were no teaching aids on elective courses in English to provide students of the EP.

Scientific and practical conferences, scientific and methodological seminars, round tables on the issues of trilingualism are held. The faculty held a round table "Multilingualism - a new model of education." On January 14-15, 2016, within the framework of cooperation between the WKSU and the branch of the Center for Excellence, a conference was held on level programmes developed in conjunction with the Faculty of Education of the University of Cambridge. On April 14, 2016, the WKSU, together with the CE and the NIS, organized and held a regional scientific-methodical seminar "Problems of development of multilingual education in the system of secondary and higher education."

Student participation in competitions: Kozlov, VS - II place, A.Kairzhanov - III place, the university team took 2nd place in the X Republican subject Olympiad of students in EP 5B011000 - Physics (North-Kazakhstan State University named after M. Kozybayev, Petropavlovsk, April 19-20.04. 2018).

Self-development, self-critical thinking, knowledge and skills are reflected in the writing of term papers and dissertations in the study of individual disciplines. Personal development of students, their creative abilities and social competence are also formed in the public life of the university (for example, curator hours, circles).

The department carries out the necessary work to prepare students for the performance of theses and master's theses: every year, students choose topics that they are interested in and correspond to their profile profession and learning paths. Topics of research work, academic leaders and reviewers are approved by order of the rector. They differ in relevance, novelty in accordance with the requirements of the EP and the needs of modern society.

All the material of the discipline in the thesis presentation is considered at the lectures, at the ISW the student independently studies all the topics and sections of the discipline using basic and additional literature. Consultations and control of material mastering are held at the IWSWT, points of current control are set. Tasks for the ISW are contained in the EMC disciplines. During the EEC visit, when attending the teaching staff of the departments of mathematics and physics, insufficient use of technical means of teaching (for example, interactive boards) was noted. In

this case, two classes were held in English, in which the use of interactive boards would significantly increase the digestibility of the knowledge gained.

Passing students practice is an important direction in the educational process. The professional growth of students as future competitive specialists depends on the effectiveness of the organization and the sequence of all levels of practice. Each stage of the practice completes training at the appropriate course and serves as the basis for the transition of the student to the next level of study.

Monitoring the satisfaction of students, business leaders - databases of practices and employers is carried out mainly through surveys.

Graduates expressed their wishes: to improve the quality of training, it is necessary to bring theoretical knowledge to practice as close as possible, to complement the list of elective disciplines, to provide knowledge in the use of subject methods and to improve students' learning of foreign languages.

For information describing the satisfaction of students WKSU named after M. Utemisov's activities of his university, the quality of educational services provided, the university actively uses annual surveys of students and undergraduates conducted in the framework of the projects: "Opinion of students and teachers about the effectiveness of the educational process in the WKSU named after M. Utemisov," Assessment of social well-being of students WKSU named after M. Utemisov," The state of inter-ethnic relations, language practice and religion in the perception of students WKSU named after M. Utemisov "and others.

Students have various other opportunities to make suggestions for improving work - by participating in the work of student self-government, collegiate bodies of the university, writing on the rector's blog, in contact boxes, calling the helpline, directly to the leadership of the department and faculty.

Questionnaires of a first-year student, a student-trainee allow for constant monitoring. In the questionnaires, students can express their suggestions and comments on issues such as specialization, studied disciplines, organization and conduct of the practice.

Monitoring and evaluation of students' knowledge is carried out in accordance with the "Regulations on the monitoring and evaluation of students' educational achievements." It defines the methods and means of control, regulates the order of preparation, organization and conduct, determines the duties of the service representative and participants. From December 2018, a new assessment scale was introduced by the MES RK (Order No. 595 of October 30, 2018).

The requirement of the principle of systematicity is the need to monitor and evaluate activities (current control, midterm control, exam) and the results of students at all stages of the study of the discipline. Systematicity lies in the fact that all students are subject to regular assessment.

The principle of clarity (publicity) consists primarily in the conduct of open trials of all trainees on the same criteria. The rating of each student, established in the process of diagnosis, is illustrative. The principle of publicity also requires the announcement and motivation of assessments. A necessary condition for the implementation of the principle is the announcement of the results of the control, discussion and their analysis.

The developed monitoring mechanisms and conditions allow for the successful adjustment of the educational process. Feedback aimed at improving educational programmes includes, as stated above, monitoring of employers, graduates, etc.

Topics of theses are developed taking into account current issues of education, annually updated and approved in the prescribed manner. The most qualified part of the faculty of the university is involved in the management of theses. In preparing theses, students use materials obtained during the period of industrial and pre-diploma practice in educational institutions, receive recommendations and reviews in the field of research, and also use the results of their own research.

Students who have fully completed the educational process in accordance with the requirements of the work and individual curriculum and work curricula are allowed to complete certification.

The university also has a system of measures for the prevention and elimination of academic debts to assist students. During the semester, the attendance and performance of students is constantly monitored by advisors and curators. Meetings and curator hours are held at which students are explained the rules for depositing academic debt.

The student has the right to file an appeal on the results of the ranking and the final exam. For the period of the examination session, an appeal commission is created from among the teachers, whose qualifications correspond to the discipline profile.

#### ***Analytical part***

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

1. During the visit, the EEC noted that there is an impetus for the introduction of modern technologies and techniques. The experts noted the insufficient use of technical means (interactive whiteboards) when attending faculty classes.

2. The members of the EEC noted that when interviewing students, it was revealed that the students' vigorous activity includes determining the content of EP, self-shaping the educational trajectory, choosing a teacher, assessing the level of learning effectiveness and teaching methods, assessing the professional qualities of teaching staff, technical support of the educational process and the sanitary condition of the premises. At the same time, students of EP are not involved in the implementation of two-diploma education.

3. The EP's management demonstrated the availability of certificates of advanced training of teaching staff for teaching subjects in English. However, it is necessary to organize regular passing of advanced training of teaching staff on the methods of teaching natural sciences, including in English, which would contribute to the development and implementation of their own methodological research.

4. A survey of students, conducted during the visit of the EAP of the IAAR, showed that students evaluate:

- objectivity and fairness of teachers: fully satisfied and partially satisfied - 98.4%;
- quick response to feedback from teachers regarding the educational process: fully satisfied and partially satisfied - 99.2%;
- the teacher objectively assesses the achievements of the students: 95.1% are fully satisfied and partially satisfied.

#### **Strengths / Best Practices**

- ensuring respect and attention to various groups of students and their needs, providing them with flexible learning paths;
- Ensuring consistency, transparency and objectivity of the mechanism for assessing learning outcomes for each EP, including the appeal.

#### **EEC recommendations**

Develop and implement their own methodological studies (for example, in the form of teaching aids) in the field of teaching elective disciplines of EP, especially disciplines taught in English. Develop a long-term plan for the implementation of two-diploma education.

Conclusions of the EEC according to the standard "Student-centered learning, teaching and assessment of performance" have strong - 2, satisfactory - 7, suggesting improvement - 1.

### ***6.6. Standard "Students"***

#### ***The evidence part***

The policy of forming a contingent of students includes career guidance during the year, the direct work of the university's admission commission during the summer period, and the management of the movement of the contingent in the process of training and graduation. The policy of contingent formation is governed by the "Regulations on the formation of a contingent of students" approved by the Academic Council of WKSU in September 2016 and includes a procedure for planning a contingent; student enrollment; contingent movements; deductions of students; the provision of academic leave; monitoring and analysis.

Table 3 presents the contingent of students of the EP "5B010900 Mathematics" and "5B011000 Physics" for the last 3 years in full-time and part-time departments.

Table 3. The contingent of students of EP "5B010900 Mathematics" and "5B011000 Physics" for the last 3 years

**Day department**

year	courses												total	kaz	rus	eng
	I			II			III			IV						
	kaz.	rus	eng	kaz.	rus	eng	kaz	rus	eng	kaz	rus	eng				
<b>EP 5B010900-Mathematics</b>																
<b>2016-17</b>	54	5		58	4		38	9		26	5		<b>199</b>	176	23	
<b>2017-18</b>	40	6		55	5		58	4		35	9		<b>212</b>	188	24	
<b>2018-19</b>	35	4		39	6		47	5		49	4		<b>189</b>	170	19	
<b>EP 5B011000- Physics</b>																
<b>2016-17</b>	45	1		52	2		35			21	4		<b>160</b>	153	7	
<b>2017-18</b>	23	11	9	45	1		28	2	10	37			<b>166</b>	133	14	19
<b>2018-19</b>	32	3	8	23	11	9	42	1		25		10	<b>164</b>	122	15	27

**Extramural Department**

year	курсы						total	kaz	rus
	I		II		III				
	kaz	rus	kaz	rus	kaz	rus			
<b>EP 5B010900-Mathematics</b>									
<b>2016-17</b>	19	-	14	4	-	-	<b>37</b>	33	4
<b>2017-18</b>	12	5	10	-	12	-	<b>39</b>	34	5
<b>2018-19</b>	43	-	12	5	9	-	<b>69</b>	64	5
<b>EP 5B011000- Physics</b>									
<b>2016-17</b>	4	-	10	-	-	-	<b>14</b>	14	-
<b>2017-18</b>	5	-	4	-	10	-	<b>19</b>	19	-
<b>2018-19</b>	21	-	5	-	4	-	<b>30</b>	30	-

The management of the EP conducts career guidance not only in the West Kazakhstan region, but also in the neighboring regions of Kazakhstan: Atyrau, Aktobe, Mangystau regions. The result is an increase in the number of students from the number of applicants from these regions who entered the EP "Physics" and "Mathematics" (in the 2015-2016 academic year - 41, 2016-2017 academic year - 34, 2017-2018 academic year - 44). Due to the fact that in the current academic year, the quota of admission under the programme "Мігілік ел жастары - индустрияға" "Serpin" according to the EP, the number of applicants for them compared with previous years has significantly decreased and amounted to 14.

For the organization of educational activities, students are provided with a reference guide, also posted on the university's Internet resource. At the university, issues of support for foreign students, as a multifactorial process of social, personal-psychological, educational adaptation, are governed by the "Regulations on Academic Mobility".

Objective recognition of higher education qualifications, periods of study and prior education, including recognition of non-formal education, is an integral component of meeting the needs of students in the learning process and contributes to mobility and is based on the "Regulations on Academic Mobility". In order to guarantee proper recognition procedures, the WKSU ensures compliance of its actions with the Lisbon Recognition Convention - no discrimination is allowed on any grounds, openness, consistency and reliability of the procedures and criteria used in the assessment and recognition of qualifications are provided, all required information and etc. The Bologna Center of the WKSU works in close cooperation with a similar republican center, with the aim of ensuring comparable recognition of qualifications.

Opportunities for the participation of students in foreign and domestic academic mobility are agreements on cooperation with partner universities. The main criteria for competitive selection of students for participation in academic mobility are the following: completion of one academic period, academic performance, and active participation in public life.

In the 2017-2018 academic year 2nd year student of the EP 5B010900 - Mathematics Sahitzhan B. was trained in Kyzylorda State University. Korkyt ata; 3rd year student Karaeva A., Arykbaeva A. - at the University named after Casimir the Great (Bydgoszcz, Poland) and Zhardemova A. - at Kalmyk State University (Elista, Russia). In 2018 he studied at the Kalmyk State University. B.B.Gorodovikova (Elista) Sagandyk A.K. In the first semester of the 2018-2019 academic year students Kubenkulova G., Adilgereeva Z., Sagyndykova G. were trained at Kalmyk State University (Elista, Russia). In the 2 semester of the 2018-2019 academic year Ongarbaeva N., Kuanyshev A. students are trained at Aktobe Regional State University named after K. Zhubanov (Aktobe), as well as students G. Kanaliev, A. Kobanova, A. Nradinova, J. Khazhymkhanova, M. Kalmaratov, Aitzhanova A. - at the Caspian State University of Technology and Engineering named after S. Yesenov (Aktau). In the 2 semester of the 2018-2019 academic year students from Aktyubinsk Regional State University named after K.Zhubanov - Aitpaganbetov G, Amangeldi Sh., Sagidullaev are studying here.

In the 2017-2018 academic year students of the 3rd year OP 5B01100 - Physics E. Tulegaliyeva, S. Nurbolzyzy. completed a semester training in Kalmyk State University. Bb Gorodovikova (Elista). In 2018, he studied at the Kalmyk State University named after Bb Gorodovikova (Elista) Kabdrashit D.R. In the 2nd semester of the 2018-2019 school year. Students Sarman Gulzat, Aytzhanova Suruer, are trained in academic mobility in Aktobe Regional State University named after K. Zhubanov (Aktobe).

In the 2018-2019 academic year 1st year undergraduate student in EP "6M011000 Physics" Almat Assiya left for semester education in Aktobe Regional State University named after K.Zhubanov.

In the 2018-2019 academic year undergraduate of the 2nd year of the educational programme "6M060100 Mathematics" Karaeva A. studied for a semester at the Atyrau State University named after Kh. Dosmukhamedova.

Students and undergraduates are involved in the work of the Academic Council of the University, the Council of Physics and Mathematics Faculty. Participation in public life allows students to develop patriotism, civil and professional competencies. More than 65% of students are engaged in social work, in scientific circles, clubs, youth associations, etc. Social activity of students has a positive effect on the quality of the development of educational programmes and personal learning outcomes.

Competence approach to the formation of EP, the studied disciplines, contributes to the implementation of professional, social, personal competencies of students.

In accordance with the requirements of GPRO in WKSU developed a pilot project of professional certification of graduates in the employers' community, which will be supplemented and put into practice as the MES RK develops a regulatory framework. The "Provision on professional certification of graduates by employers" provides for assessment of the level of professional qualifications of graduates by training the departments together with employers of

control and assessment materials intended for evaluating knowledge and skills, competencies at different stages of training, as well as certification tests of graduates.

WKSU created the necessary conditions for the creative development and participation of students in scientific research. One of the strengths in the organization of research activities of the university is to attract students to perform research and development in cooperation with faculty. Undergraduates and undergraduates of the Physics Institute are engaged in research and development activities in the “Robotics and Mechatronics” scientific circle.

Formed a system of motivation to attract students to research. Students who won in the internal research competitions of the university, successfully participating in student conferences, competitions, round tables, etc. awarded diplomas, certificates, letters of thanks and valuable gifts. The best students are sent to participate in regional, republican and international competitions, competitions and conferences. Every year, students with achievements in research and development by order of the rector receive a one-time allowance to the scholarship.

There is a student scientific association. The number of students involved in research activities is 40. The results of students' research activities are published in scientific collections, the number of such publications was about 30 articles.

Basically, the research of students is carried out through the preparation of term papers and dissertations, the implementation of scientific work during independent work.

Upon graduation, graduates who have successfully completed training receive a state diploma and a diploma supplement (transcript) of the state sample in three languages, indicating the learning outcomes and the number of loans studied - Kazakhstan and ESTC.

The university has a graduate employment promotion service - Career Center. Table 4 presents data on the employment of graduates over the past 3 years. Experts EEC notes a high percentage of employment in general, while there is a 100% employment of graduates of EP 6M011000 - Physics.

Table 4. Employment of graduates of EP 5B010900-Mathematics, 5B011000-Physics, 6M011000 - Physics, 6M060100 - Mathematics

	2015-2016	2016-2017	2017-2018
<b>5B010900 – Mathematics</b>			
Total graduates	61	55	71
employed	93,4%	100%	97,1%
<b>5B011000 – Physics</b>			
Total graduates	35	34	49
employed	88,6%	88,2%	83,6%
<b>6M011000 – Physics</b>			
Total graduates	3	3	9
employed	100%	100%	100%
<b>6M060100 – Mathematics</b>			
Total graduates	-	-	-
employed	%	%	%

An important factor in promoting the employment of graduates and further supporting communication with them is the Career Center website - [tylek.wksu.kz](http://tylek.wksu.kz). A data bank is created annually for vacancies based on applications from government departments, companies and organizations. Faculty management together with the Career Center invites new employers, organizes meetings with them, concludes agreements on social partnership. Career Day is systematically held, as well as personal distribution, a specialised website has been opened. The joint activities of the Alumni Association and the Council of Employers has allowed a significant increase in the number of employed. However, at the meeting of EEC experts with graduates of the EP there was not a single representative of the Alumni Association, which made it difficult to obtain objective information about the work of the Association and its impact on the development of the EP.

The representative student community is the university student government, which unites all university students. In all faculties, student deans work, who together with students spend holidays, themed evenings, meetings with famous people, and sports competitions. Students organize their holidays at the university's health center, which is located outside the city. University students actively cooperate with youth organizations of the city and region, participate in grant projects, concerts, contests, festivals, meetings, literary readings, conferences. Outside of classes, students communicate in the Palace of Sports, in a student cafe, an Internet cafe, athletic fields, a university and city library, theaters, concert halls, etc.

Created conditions for communication in the virtual space through the site WKSU. There is a forum for students, the portal has a blog of the rector, blogs of scientists, the FAQ section, a complaint book, etc. The site creates conditions for a good time: it offers information on educational activities (video broadcasting of studies, news and announcements about the life of the university, the monthly newspaper Orken, the quarterly scientific journal Vestnik WKSU, schedule of classes, distance learning, etc.) and entertainment programmes - beauty contest "MISS on-line WKSU" <http://miss.wksu.kz/>, etc. For students of the Faculty of Physics and Mathematics there is a page on the social network <https://vk.com/wksufizmat>.

The system of feedback and support for students includes the prompt submission of information on the results of the assessment of knowledge based on the results of current, mid-term and final control of knowledge. It provides an opportunity to appeal to the leadership of the university and the EP through personal reception, appeals through the "mailboxes" and the site, during meetings with the leadership, through student government, etc.

The most important element of feedback for students are surveys carried out as centralized at the university level - "The opinion of students and teachers about the effectiveness of the educational process in the WKSU named after M. Utemisov", "Assessment of social well-being of WKSU named after M. Utemisov", "The state of inter-ethnic relations, language practice and religion in the perception of students WKSU named after M. Utemisov and others, and at the level of the faculty and department - surveys of students and graduates to improve the content of EP, practices; assessments of the professional level of the teaching staff in the framework of the work of the expert commission "The teacher through the eyes of the student", etc.

In WKSU named after created a mechanism for monitoring student satisfaction with the activities of the university as a whole and the quality of educational services provided. Participating in sociological surveys, representatives of students selected by representative samples, give their assessment of the educational system used at the university; material and sanitary and hygienic conditions of the educational process; its educational and methodological and information technology support; the effectiveness of the forms and procedures used in it for conducting studies and monitoring educational achievements; the state of its social infrastructure (the quality of work of university cafes, canteens and buffets; medical care, etc.). In particular, students made various suggestions for improving the schedule; providing trainees and teachers with free internet access, etc. The university management took measures to create a zone of wireless access to the Internet, installed terminals, strengthened control over the work of the dispatch service, and introduced an electronic schedule. Accordingly, the number of such claims was either reduced to zero or decreased markedly.

There is a system of motivation for gifted students - distinguished in studies and SRW recommended for obtaining scholarships (named after the First President of the Republic of Kazakhstan, G. Musrepov, M. Tleuzhanov, A. Taymanov, VV Ivanov, M. Utemisov, A. Pushkin). The best students are awarded with certificates of merit, letters of thanks, memorable gifts, and awards. The university administration constantly provides material support to gifted students on trips to conferences, festivals, competitions, debates, sporting events, and academic mobility. Documents are submitted in a timely manner to transfer successful students to vacant grant places. In the 2017-2018 academic year 3rd year student of the EP "5B011000 Physics" Kudryavtseva Alena won the nominal scholarship of the Foundation of the First President of the Republic of Kazakhstan. In the 2018-2019 academic year Student of EP "5B010900

Mathematics" Bekmaganbetova Albina is a nominal fellow of the above Foundation. The analysis of accredited EPs according to this standard allows us to draw the following conclusions.

### ***Analytical part***

1. The university demonstrated the policy of forming a contingent of students in the context of EP. This is evidenced by the fact that the student's model of forming a contingent of students in accordance with the legislation of the Republic of Kazakhstan is based on the principle of transparency, unity, and system. To increase the number of applications for admission from applicants, the university conducts active professional orientation work with school graduates not only in the West Kazakhstan region, but also in other nearby areas.

2. The administration of EP demonstrated a system of feedback and support for students that has been in force since the moment of admission to the university. Experts note that the work of advisers, curators, deans, Office-Registrar, Student Service Center, Bologna Process Center, student self-government, etc. It is aimed at successful adaptation of yesterday's schoolchildren to the higher education system and solving emerging issues.

3. The university has demonstrated the provision of opportunities for external and internal mobility of students of EP, as well as assistance in obtaining various awards and grants for training. This is evidenced by the fact that over the past three years, the number of students involved in the academic mobility programme has increased, as well as the receipt of various awards by the students.

4. The leadership of the EP should pay attention to strengthening the interaction of graduates with the alumni association.

5. The EP management has demonstrated the maximum amount of effort for the employment of graduates from EP "6M011000 Physics", while according to EP "5B010900 Mathematics", "5B011000 Physics", "6M060100 Mathematics" the percentage of work is high, but not the maximum.

6. The survey of students, conducted during the visit of the EEC of the IAAR, showed that students evaluate:

- the organization of education provides a sufficient opportunity for playing sports and other leisure activities: 96.1% fully agree and agree;
- availability of counseling on personal problems –99.2%;
- availability of academic counseling - 97.7%.

### **Strengths / Best Practices**

- the policy of forming a contingent of students of the EP from admission to graduation ensures the transparency of its procedures;
- special adaptation and support programmes for new and foreign students;
- The use of a mechanism to recognize the results of academic mobility of students;
- providing opportunities for external and internal mobility of students of EP, as well as assist them in obtaining external grants for training;
- providing trainees with places of practice, facilitating the employment of graduates;
- Providing graduates with a certificate of qualification;
- monitoring of employment and professional activity of graduates of EP;
- support for gifted students.

### **EEC recommendations**

Conduct a series of round tables with graduates of recent years to exchange experience and integrate them into the alumni association.

Conclusions EEC according to the standard "Students" according to EP 5B010900 - Mathematics, 5B011000 - Physics, 6M060100 - Mathematics have strong - 8, satisfactory - 4, suggesting improvement - 0.

Conclusions of the EEC according to the standard "Students" in EP 6M011000 - Physics have strong - 9, satisfactory - 3, suggesting improvement - 0.

## **6.7 Standard "Teaching staff"**

### ***The evidence part***

The need for training university staff is determined by the qualification requirements established in the job descriptions of employees. Evaluation of specialists of structural units is carried out by conducting certification in order to determine their level of training and the ability to perform their duties.

Recruitment and assessment of teaching staff is carried out on the basis of the Order of the Ministry of Education and Science of the Republic of Kazakhstan No. 230 of April 23, 2015 "On Approval of the Rules for Competitive Replacement of teaching staff Positions and University Research Scientists". Persons wishing to participate in the competition, submit applications with the relevant documents. To ensure the effective recruiting of the teaching staff, the university provides service housing, the opportunity to engage in scientific work, and differentiated pay. The competition for filling the posts of the teaching staff is carried out on the basis of analytical summarizing the results of the applicants' activities in the form of testing, interviews, creative reports, and knowledge was tested in accordance with the standard qualification characteristics for each job to determine the level of professionalism. During the competition, the developed map of the QMS process "Holding a competition for filling the posts of scientific and teaching staff" is used.

The staffing of the teaching staff of the EP "Physics" and "Mathematics" according to the staffing is 100%. According to the approved staff list, the total number of teaching staff of the Department of Mathematics is 14 people, the number of full-time teachers is 12, the number of teachers with scientific degrees is 6 (all of them are full-time). The number of teaching staff of the Department of Physics is 11, the number of full time teachers is 10, the number of full time teachers with advanced degrees is 5. The share of teachers with advanced degrees and titles is 50% of the number of full time teachers. In both departments, 80% of teachers can conduct classes in the state language, 60% of teachers can teach in English.

In recent years, the proportion of young teachers who graduated from the magistracy has been growing as a part of the faculty. Every year, a young teacher's school works at the university. To ensure the growth of the professional level of training young people in the university, a video-base of master classes of experienced teachers has been formed. According to the results of the innovative technology competition, a collection of Advanced Pedagogical Experience School is published annually, and a mentoring system is in place. Experts from the EEC note that the development and implementation of mass online courses in basic and specialised disciplines will be a positive result for the entire educational process.

The average age of teaching staff working with students and undergraduates in mathematics is 50 years; in physics - 49 years.

The website of the university in the section "Faculties" provides information about the heads of departments (dean, heads of departments) with phone numbers and email addresses, feedback functions. Interested persons can receive information on the qualifications of teaching staff on the website <http://fizmath.wksu.kz/>, where data on teachers, advanced training, a list of main works, a list of disciplines to be read are presented. In addition, the site visitor can write your question or suggestion to the faculty on the personal page of scientists.

To determine the level of competence of teaching disciplines in the departments, reciprocal and supervised visits to classes are carried out, and open classes are held.

In order to assess the professional level of the teaching staff, identify problems related to the implementation of the educational process and determine the directions for preparing the teaching staff, improve the methodological support of the educational process at the university, an expert commission has been established. The commission's activities are carried out in three areas: first, the assessment of the professional level of faculty by experts; secondly, the assessment of the activity of the teacher by the students, the questioning "The teacher through the eyes of the students", which allows to realize the principle of feedback; thirdly, the

assessment of the professional level of faculty by colleagues in the department, for this purpose, the questionnaire “The teacher through the eyes of colleagues” was developed and adopted, which allows for a close relationship between the work of the expert commission and the results of the mutual visits.

Enhanced attention requires the use of technical means of training, clarity, illustrative material; use in class innovative teaching methods in combination with traditional ones.

The teaching staff according to the scientific and pedagogical qualifications conduct research work and prepare students and undergraduates to participate in scientific seminars, conferences, subject Olympiads, scientific projects, etc.

Planning of teaching activities of teaching staff is carried out on the basis of the Rules for the organization of the educational process on credit technology of education. Order of the Ministry of Education and Science of the Republic of Kazakhstan No. 152 dated April 20, 2011 (with amendments and additions dated January 28, 2016 No. 90 and in October 2018), as well as the “Standards of time by types of educational work and control measures” approved by the University Academic Council . Planning of teaching activities of teaching staff is carried out in the following areas, which are reflected in the "Individual plan of work of the teacher": study; educational and methodical work; RW, which includes SRW; organizational and methodical work; social educational; training.

Individual teaching load of the teacher is based on the calculation of hours for the disciplines of the department. The average academic workload of faculty at the university for the 2018-2019 academic year is 707 hours (15.5 credits).

Teachers of the accredited EP annually take part in various conferences of international and republican significance. Also, teachers are published in journals in journals recommended by the Committee on the Control of Education and Science of the MES of RK, such as “Vestnik WSKU named after M. Utemisov. However, this journal is recommended for pedagogical, but not for natural sciences.

Faculty members participated in international and republican conferences in Kazakhstan and outside the republic.

In 2016, under the leadership of Zhusupkaliyeva G.K. the department carried out work on the grant project of the Ministry of Education and Science of the Republic of Kazakhstan “Development of prototypes of biological and chemical sensors based on diamond films using the CVD method of the filament”. In the same year, work was carried out on the project “Improving the structure and content of the final control of students 'and magistrates' academic achievements”, funded by the university, under the guidance of Ph.D., associate professor Zhumagaliyeva A.E.

In the current academic year, work began on a project funded by the university under the direction of Ph.D., associate professor A.N. Kushekkaliev on the theme “Development of a digital laboratory and practical complex according to an updated physics programme”. The study is conducted by teachers and undergraduates of the Department of Physics.

The faculty of the department and students conduct an integrated research on the initiative topics "Improving the scientific and methodological approaches to elective courses in the content of teacher training in natural sciences" under the guidance of Ph.D., Professor A.Ye. Kuzmicheva, Ph.D. M.Sc., associate professor A.A.Kulzhumiyeva; "Problems of teaching ICT in the context of updating the content of education."

The teaching staff implementing research projects conduct scientific research, the results of which are published in both domestic and foreign publications, including the impact factor and international databases of Tomson Reuters, Scopus, materials of republican and international conferences (Table 5).

Table 5. Total number of scientific articles for 2016, 2017, 2018

№	Titles	2016	2017	2018
1	In magazines, recommended. Committee for the Control of Education and Science MES RK	4	4	8

2	In foreign scientific journals and conference collections	2	5	6
3	In journals with a non-zero impact factor included in the Kazakhstan citation base, RSCI base	2	2	1
4	In magazines with impact factor included in international databases Thomson Reuters, Scopus	2	5	3

The teachers are engaged in patent registration of the results of their research. The following copyright patents and certificates are available:

1. Gumarov G.S., Abishev K.K. and others. "Mobile workshop for repair and maintenance of transport equipment", 12/22/2016.
2. Gumarov G.S. and others. "The method of filling bulk cargo in containers transported by railway platforms", 23.03.2017.

Copyrights are the rights that authors have in relation to their works, such as computer programmes and teaching aids.

1. Medeshova AB, Batrasheva E.M. "Бастауыш мектептегі математика", 05/19/2016
2. Medeshova A.B., Boranbayeva B.S. «Орта ғасырлар тарихы (Vғ. екіншісі жартысы – XVIIғ. ортасы) 04.24.2017.
3. Abisheva K.K., Gumarov G.S., Bochkarev P.Yu, Klochkov V.N. "Electronic textbook - Automobile transport-ways of development", 02.29.2016

Advanced training is carried out in national universities, in the Republican center "Orleu", through the line of "Bolashak", under the grant "The best teacher of the university", at the expense of outside organizations, in WKSU and abroad, both at the expense of the university, and teachers.

Periodically, the university organizes courses for teachers on the system of academic mobility, with the invitation of foreign specialists. So, for 4th year students and teachers accredited by the OP in the first semester of the 2017-2018 academic year. the course "New Approaches in Teaching Mathematics" was organized under the guidance of Ph.D. Moscow State Pedagogical University Redko ZB

The University has a Regulation on the procedure for awarding and providing one-time financial assistance to employees of WKSU them. M. Utemisov. Starting from the 2018-2019 school year, quarterly bonuses are paid to employees and teachers of the university for the quarter, the list is compiled by the department and approved by the special commission of the faculty.

Center for Sociological Research WKSU monitors the views of university teachers on the state of their social well-being and the course of the educational process at the university. Developed on the basis of the analysis of the received information recommendations are used to make tactical and strategic management decisions to improve the activities of WKSU.

Teachers of accredited EP annually participate in the competition of innovative technologies WKSU. So in the 2017-2018 academic year Iskalieva A.U. with the project "The organization of students' research work" on EP 5V011000 - Physics "; Zhambulov Zh.M. with the project " Ағылшын тіліндегі математика пәндерінде танымдылық көзқарас тұрғысынан түпнұсқалық оқу материалын кеңінен қолдану".

The level of IT-competencies allows you to judge the requirements of the WKSU for the organization of the educational process. Each teacher works with an electronic schedule, an electronic journal, AIS "Plato", testing complexes, annually electronic textbooks are created by teachers.

Scientists from far and near countries were involved in conducting studies for bachelors and undergraduates: Kzhishtov Tuburek (Poland), Stefan Reder (Germany), Redko Z.B. (Russia), Lee Jonghyun (South Korea), Banchkovska Anna (Poland). And also attracted scientists from other universities of Kazakhstan: I. Ilyasov. - Ph.D., Associate Professor, Qaidasov Zh.K. - Ph.D., associate professor, Baktybekov K.S. - Doctor of Physical and Mathematical Sciences, Professor, Sartabanov J. - Doctor of Physical and Mathematical

Sciences, Professor, Imashev G.I. - Ph.D., professor. However, the commissions remained incomprehensible criteria on the basis of which scientists from these universities were invited. In this regard, members of the EEC note the need for working a prospective plan for international and national academic faculty (inbound and outbound) with universities in the top 500 QS and top 10 rankings of the IAAR, as well as with faculty members in the top 50 rated by the IAAR .

In the period 2015-2017, the senior teacher Iskaliyeva A.U. She passed a scientific internship at the University of Casimir the Great (Bydgoszcz, Poland) on the subject: “Creating prototypes of bio- and chemosensors based on diamond films grown by CVD”.

**During the visit, the EEC does not**

Teachers of the accredited EP take part in city, regional and republican events: round tables to discuss the Message of the President of the Republic of Kazakhstan, international and republican forums, sports days, festive demonstrations.

**Analytical part**

The analysis of accredited EPs according to this standard allows us to draw the following conclusions.

1. The university has an objective and transparent personnel policy. Experts note that the staff of the teaching staff of the EP is staffed in accordance with the legislation of the Republic of Kazakhstan and the Rules of competitive replacement of posts of scientific and teaching staff of higher educational institutions.

2. The university demonstrated the organization of career growth and professional development of teaching staff of the EP. This testifies to the fact that the teachers become the owners of the title “The best teacher of the university”, in 2015 - A. Medeshova, and A. Kulzhumieva in 2018.

3. The administration of EP demonstrated purposeful actions for the development of young teachers. This is evidenced by the fact that young teachers are currently studying in doctoral studies in RK and postgraduate studies in the Russian Federation.

4. The EEC notes that it is necessary to continue work on academic mobility of teaching staff (inbound and outbound) under the EP, by developing a long-term development plan for international and national academic teaching staff (inbound and outbound) with universities in the top 500 QS and top-10 rankings. rating of the IAAR, as well as with teaching staff included in the top 50 rated by the IAAR.

5. Experts from the EEC note that there is a need to improve the criteria for the active use of teaching staff of the accredited EPs of information and communication technologies in the educational process, namely the introduction of the e-portfolio, the MEP, etc.

6. The results of the survey of teaching staff of the accredited EP showed that

- The university provides an opportunity for continuous development of the potential of faculty: very good and good - 98.9%;
- encouraging innovative activities of faculty: very good and good - 92.4%;
- the level of stimulation and attraction of young specialists to the educational process: very good and good - 98.9%;
- the adequacy of the recognition of the capacity and abilities of teachers: very good and good - 94.6%.

**Strengths / Best Practices**

- The university has an objective and transparent personnel policy, including recruitment, professional growth and staff development, ensuring the professional competence of the entire state;

- The university provides an opportunity for career growth and professional development of teaching staff of the EP;

- attraction to teaching practitioners from the school and the center of technical creativity;

- The leadership of the EP provides targeted actions for the development of young teachers;

- Involvement of teaching staff in the community.

EEC recommendations

To develop and introduce into the process of implementation of EP the mass open online courses on basic and major disciplines.

Develop and implement a promising long-term plan for the development of international and national academic faculty (incoming and outgoing) with universities included in the top 500 QS and top-10 ratings of the IAAR, as well as with faculty members in the top-50 rated by the IAAR.

Conclusions of the EEC according to the standard "Teaching staff" have strong - 5, satisfactory - 6, suggesting improvement - 1.

### 6.8. Standard "Educational resources and student support systems"

#### The evidence part

Currently WKSU named after M. Utemisov on his balance has 7 educational buildings, 3 student dormitories, 2 sports halls, 3 adapted halls, a testing laboratory, an agrobiostation, 2 hotels, 3 garages, 2 open sports grounds. The total area of educational buildings workshops laboratories, gyms, sports fields, dormitories, where classes are held with students, is 42,534.1 square meters, a training area of 21,461.6 square meters.

The faculty has the following classroom fund: in the educational building No. 1 - laboratories of educational television, software development and Web technologies, robotics, a virtual laboratory, a scientific and methodical study on multilingualism, auditoriums named after K.Kenzhegulov, Yu.K. Suyetina, A.D.Taymanova, 12 lecture halls; in the educational building №8 - 6 computer classes, which are equipped with computer equipment, scientific and methodical study on informatics teaching methods, 4 laboratories (Computer architecture, Computer graphics, Computer networks, Database and information system), where there are 129 computers.

Security WKSU information and computer equipment are presented in table 6.

Table 6. Indicators of higher school informatization

Indicators	2016-2017	2017-2018
Local network	+	+
WEB-site	+	+
Availability of an Intranet site	+	+
E-mail	+	+
Availability of educational portal	+	+
Number of computers	1298	955
Number of students per 1 computer	6	6
Internet access speed	85 Mbit/s	120Mbit/s
Number of computer classes	48	48
The number of computers in computer classrooms	665	665

The data transfer rate within the corporate network is 100 Mbit / s (7 educational buildings and 3 dormitories), in the server segment and on campus highways 1000 Mbit / s. Connecting to the Internet via fiber optic cable at a speed of 120 mbit / s with unlimited traffic.

The library fund in the context of the accredited EP is presented in Table 7, from which a sufficient amount of literature in the Kazakh and Russian languages should be noted, and the lack - in the English language.

Table 7. Library Fund in the context of the EP

Name of EP	The number of textbooks, teaching and scientific literature								
	2016-2017			2017-2018			2018-2019		
	Kaz	Rus	Eng	Kaz	Rus	Eng	Kaz	Rus	Eng

5B010900	Mathematics	15110	3428	101	15275	3543	109	15340	3621	113
6M060100	Mathematics	3233	2989	101	3398	3017	109	3440	3149	113
5B011000	Physics	11036	4751	96	11183	4815	119	11227	4993	126
6M011000	Physics	3860	3775	96	4018	3860	119	4125	3917	126

Students and teachers of the accredited EP provide standard resources:

1. Journal "Physics at school with the application on CD"
2. Journal "Physics and Astronomy"
3. Journal "Physics in the Kazakhstan School"
4. infojournal.ru
5. Tavrichesky Herald of Informatics and Mathematics
6. Journal "Mediated Communication" (eng.)
7. GILC Alert Magazine (Global Internet Liberty Campaign newsletter) (English)
8. Journal "Information, communication and society" (eng.)
9. Internet.ru magazine
10. Moscow Mathematical Journal (English)
11. Journal "Bulletin WKSU."

Foundation of electronic library 15433. On-line access to foreign full-text multidisciplinary databases is open for users of the WKSU: Republican Interuniversity Electronic Library, State Library of the First President of the Republic of Kazakhstan - Leader of the Nation Web of Knowledge, Journal Citation Reports, EndNote Web ", " Web of Science and Researcher ID ", " Elsevier ", Lan, and since 2015 to the Academic Search Complete and Business Source Complete databases, EBSCO, Taylor & Francis, IPR books and Willey online Library, on-line editions mirknig.com, takebooks.com, universebook.ru, aldebaran.ru, elibrary.kz, kazrena.kz, kazneb.kz.

There are specialised rooms that are the scientific and methodological base of the EP. Scientific-methodical classrooms are provided with computer equipment and literature, educational and electronic publications, practical documents, diploma and term papers, handouts, exhibits, etc. are presented.

The main indicators of the university's financial activities show its stability and self-sufficiency.

To equip the educational process, specialised laboratories and classrooms materials purchased in the amount of 42,696,600.92 thousand tenge. For this year, more than 20 million tenge was pledged for public procurement for the purchase of radio electronics and mechatronics laboratories. However, during the visit of the EEC to the laboratories of the methods of teaching physics, optics and atomic physics, an insufficient amount of laboratory equipment was demonstrated, some instruments are morally obsolete. In the laboratory of optics, it is recommended to make adjustable darkening (black fabric roller shutters) for a more effective demonstration of light phenomena.

The effectiveness of the security of the EP is assessed by checking compliance with licensing and regulatory requirements, assessing the satisfaction of faculty and students.

For the organization of educational activities, students are provided with a reference guide. For the formation of IC, the choice of disciplines and specializations, students are provided with QED containing annotations, goals and objectives of studying disciplines, a logical sequence of their study, prerequisites and post-requisites.

The Agreement on the provision of educational services that each student receives contains information on the rights and obligations of the parties, the amount and procedure for payment of educational services, the responsibility of the parties and the procedure for resolving disputes, the period of validity, the procedure for changing the terms of the contract and its termination.

The university has an advisory service, which is designed to assist in the development of the educational programme. The tasks of advisors (S.Mauteeva, B.S. Imangaliyeva) include acquaintance of students with the organization of the educational process, the Charter of the University, the Internal Regulations of the University, the Rules and Responsibilities of the Student, the Rules for Living in a Dormitory; assisting students in defining individual learning

paths; Consultations for students in the selection of disciplines; assisting students in drawing up individual curricula, etc.

There is a curator service, a curator council works at each department. The curators are teachers EP 5B010900 - Mathematics - Mauteeva S.M., Zakarieva Z.A., Dzhambulov Zh.M., Urynbaeva L.I. and departments EP 5B011000 - Physics - Kadyrova G.M., Iskalieva A.U., Gubasheva A.O.

The university has created a number of youth organizations - the Students Union; branch of the Alliance of Students of Kazakhstan WK; Youth wing " Жас Отан"; student groups, specialised groups ЖАСЫЛ ЕЛ"; student government.

University students have the opportunity to manage the development of the university. Every year at the general meeting of students are elected student deans, student president. Students are members of the Academic Council of the University, faculties, commissions to combat corruption, the distribution of places in the hostel, etc.

Thus, students have the opportunity to familiarize themselves with the requirements for the educational process, financial discipline, behavior, discipline, organization of independent work, to participate in the work of public associations and university management.

The university has developed guidelines QMS 07.01 "The procedure for dealing with complaints and consumer complaints."

The ways of delivering electronic educational resources to students are: the funds of the WKSU library; electronic reading room library WKSU; electronic databases of departments of WKSU and departments, where electronic versions of curricula, MEC, test tasks are available available through the local network of the university; WKSU website and educational portal providing access via the Internet to the working curricula of EP; to educational and methodical complexes of disciplines of EP; to test tasks in all studied disciplines; to schedule training sessions; to educational video materials; to the electronic catalog of the library WKSU, etc.

The university has its own WEB-portal on the Internet (<http://wksu.kz/>), which offers access to a single information-educational environment of the university, including both internal and external electronic resources: intranet-site <http://inside.wksu.kz/>; electronic library resources <http://library.wksu.kz/>; European system of credit transfer and accumulation <http://ects.wksu.kz/>; career center <http://tylek.wksu.kz/>; applicant <http://talapker.wksu.kz/>; Moodle distance learning system (<http://moodle.wksu.kz/>); beauty contest "MISS on-line WKSU" <http://miss.wksu.kz/>; mail server <http://mail.wksu.kz/>; WSKU video news channel <http://www.youtube.com/user/wksutv/>; news portal <http://news.wksu.kz/>; AIS "Makhambet" <http://e-portal.wksu.kz/>; AIS "Plato" <http://platon.wksu.kz/>; sites of the Faculty of Physics and Mathematics <http://phim.wksu.kz/>.

In preparing students, training with the use of distance learning technologies is used. The organization of the educational process is based on the use of the Internet. The university has an educational portal where teaching materials are available for students; as well as the "Moodle" distance learning system, which provides student registration, creating a page for each where you can view your courses, grades and post tasks. This programme also has its own page and the teachers, where you can view the contingent of students enrolled in courses and make marks. The programme also allows you to conduct a final control on remote access.

However, in the presented programmes it is not envisaged that the needs of various groups of students are provided in providing them with methodological and educational materials on the accredited EP.

Training in the cluster is sufficiently provided with material and technical base. In accordance with the model and work programmes, the accredited EPs are equipped with the necessary classroom and laboratory facilities, classrooms and other facilities that provide conditions for education. On accredited EP there are 8 specialised laboratories equipped with 23 computers connected to the Internet.

The educational process in the laboratories is provided with the necessary laboratory equipment, installed software, teaching aids, textbooks, guidelines.

A wireless Wi-Fi network has been deployed on the territory of educational buildings, through which students and teachers get free access to the Internet and the information and educational environment of the university. The university has its own WEB-portal on the Internet (<http://wksu.kz/>), which offers access to a single information and educational environment of the university, including both internal and external electronic resources.

The sites of the faculties are represented in the departments data on EP; Faculty, including interactive pages providing online consultation; information about research; social partnership; international cooperation, etc.

Examination of research, graduation and dissertation works on plagiarism is carried out. To this end, the university has created a programme called the Automated System "AntiPlagiat", which is designed to verify the theses of bachelors. Master's works are allowed to protect if there is a certificate from the National Center for State Scientific and Technical Expertise about the absence of plagiarism. For example, in the 2017-2018 academic year the average percentage of students in EP "5B011000 Physics" according to the "Certificate of Conformity with the Allowed Norm" of the AntiPlagiat programme is 3.43%; The average percentage of students in EP "5B010900 Mathematics" is 5.65%.

### ***Analytical part***

As a result of the visual inspection by the members of the WEC of the facilities, the following were noted:

1. EP management has demonstrated the adequacy of material and technical resources and infrastructure. This is evidenced by the fact that the buildings and facilities of the university comply with the current sanitary standards and fire safety requirements, classroom and laboratory facilities, classrooms and other facilities, sports facilities comply with the established norms and rules.

2. The EP management has demonstrated the compliance of information resources with the specifics of the EP. However, experts from the EEC note the presence of outdated equipment in physical laboratories, and recommend that the laboratory stock of instruments be reviewed and updated.

3. The administration of EP demonstrated the compliance of library resources, including the fund of educational, methodical and scientific literature on general educational, basic and major disciplines on paper and electronic media, periodicals, access to scientific databases. This is evidenced by a unique book collection that holds copies issued more than 200 years ago and the latest literature. However, due to the fact that the accredited EP has disciplines taught in English, it is necessary to replenish the fund of educational and methodical literature in English, including its own publications.

4. The EP management has demonstrated the existence of a mechanism for the examination of the results of research, final works, and dissertations on plagiarism.

5. A survey of students, conducted during the visit of the EEC of the IAAR, showed that satisfaction:

- availability of library resources: fully satisfied and partially satisfied - 100%;
- the existing educational resources of the university: fully satisfied and partially satisfied - 99.2%;
- availability of computer classes and Internet resources: fully satisfied and partially satisfied - 96.1%;
- classrooms, classrooms for large groups: fully satisfied and partially satisfied - 94.6%;
- student lounges: fully satisfied and partially satisfied - 89.1%;
- with the existing scientific laboratories: fully satisfied and partially satisfied - 92.3%;
- providing students with a hostel: fully satisfied and partially satisfied - 97.6%.

### **Strengths / Best Practices**

- Compliance of library resources, including the fund of educational, methodical and scientific literature on general educational, basic and major disciplines on paper and electronic media, periodicals, access to scientific databases in the Kazakh and Russian languages;

- access to educational Internet resources;
- examination of the results of research, final works, theses on plagiarism.

### **EEC recommendations**

Develop and implement a long-term plan for the re-equipment of the educational laboratories of the Faculty of Physics and Mathematics and the creation of a modern material and technical base for the implementation of the 5B011000 Physics and 6M011000 Physics programmes.

To meet the needs of various groups of students, replenish the library resource pool with literature in English.

Conclusions of the EEC on the standard "Educational resources and student support systems" according to EP 5B010900 - Mathematics, 5B011000 - Physics, 6M060100 - Mathematics have strong - 3, satisfactory - 6, suggesting improvement - 1.

Conclusions of the EEC on the standard "Educational resources and student support systems" EP 6M011000 - Physics have strong - 3, satisfactory - 7, suggesting improvement - 0.

## **6.9 Standard "Public Information"**

### ***The evidence part***

WKSU is one of the largest and widely known in the region, multi-disciplinary universities. It carries out educational and scientific activities, advanced training and retraining of managerial and scientific personnel for the western region of Kazakhstan, constantly improving its multifaceted activities and infrastructure through active search, adaptation and use of technological, pedagogical and managerial innovations, increasing the efficiency and quality of training.

Information about the activities of universities is useful both for applicants and students, and for graduates, other stakeholders and the general public. Therefore, WKSU provides information about its activities, including the programmes implemented, the expected learning outcomes for these programmes, the assigned qualifications, teaching, training, assessment procedures, passing scores and training opportunities provided to students, as well as information about graduates' employment opportunities. However, on its own web resource wksu.kz there is no information about the audited financial statements in the context of the EP.

Analysis of the external environment shows that the university has a long-standing and stable positive image, which was formed in the public consciousness as a result of its long and multifaceted activities, as reflected in the regional media.

This is well evidenced by the data of sociological studies, noted above.

To a large extent, the formation of a positive image of WKSU is influenced by the active dissemination of information about its activities. The information is posted on the university website both in the news section and in the thematic sections. The university newspaper "Orken" is published, video news are systematically published, articles and speeches of scientists are published in the regional and republican mass media.

During the school year, the activities of the university were systematically covered in the media, including accredited programmes:

- in the republican print media (newspapers "Kazakhstanskaya Pravda", "Egemen Kazakhstan", "Ana tili", magazine "Astas", "Ak Zhaiyk.kz", "Modern Education", etc.), on republican television broadcasting (KAZTRK "Kazakhstan ", " Khabar ", " 24 KZ ") - 20 publications / programmes;

- regional mass media (social and political newspaper "Oral әһірі", "Ural", "Zhaiyun Ony", "Pulse of the city", regional television "Kazakhstan Oral", city television "TDK-42") - 50 publications / programmes;

- the university student newspaper "Orken" was published.

The university administration uses various methods of disseminating information - management-organized briefings, open-door days, data on university vacancies, round tables with heads of enterprises and institutions, monthly and weekly vocational guidance. For

example, with the invitation of employers from the neighboring regions of the western region, job fairs are held annually for graduates of educational EPs (including “5B011000 Physics” and “5B010900 Mathematics”). Employers are told about the subjects studied, provide information on competencies, practical skills, etc. 1-2 times a year, round tables are organized with the heads of enterprises and institutions in accordance with partnership agreements.

In order to inform the public, meetings are held with school principals and heads of city and district education departments. For example, within the framework of the vocational guidance work of the teaching staff of the department (Imangaliyeva BS, Iskaliyeva A.U., Kadyrova G.M., Kazhmukhanova G.Sh., etc.) provided information on training opportunities and various educational programmes "5B011000 Physics", "6M011000 Physics" and other EP.

During the school year, the press service posted promotional material for applicants on the pages of regional and national media. Promotional materials on the state programme «Мәңгілік ел» - «Серпін-2050» are published in the media of the southern regions of Kazakhstan.

The activity of the university, in full accordance with the vision and mission, is closely connected with the life of society. WKSU teachers take part in city, regional and republican events; public figures, masters of culture, politicians participate in the activities of the university; Articles and speeches of the university management and scientists are presented in the mass media. Teachers of the department of mathematics Zhambulov Zh.M., Mukhambetova B.Zh., Kulzhumieva A.A. took an active part in the television programme "Erudite" on the television channel «Ақжайық» as jury members ([http://oraltv.kz/ru/archive/programmes/programmes\\_social/erudit\\_oraltv/919099](http://oraltv.kz/ru/archive/programmes/programmes_social/erudit_oraltv/919099)).

Faculty staff and students of physics each month provide information about the activities held in the newspaper “Orken”. For example, after meeting with an associate professor of the Kazakh literature department of the Eurasian National University named after L.N. Gumilyov, Abavedologist Omar Zhalel, third-year student N. Aybergenova published an article “What is the spiritual wealth of society?”, Professor, Ph.D. Kuzmicheva A.E., Ph.D. Syrym J. and senior lecturer of the department Kadyrova G. M. published an article “The Legendary E. Junusov”. In 2017, J. Syrym, K. Kaimukhanova, A.K. Kizagalieva published an article "Methods of teaching physics in computer modeling."

Presentations by Professor A. Kydyrshaev, Associate Professor Mukhlisova Z.K., Associate Professor Yurov O.V., Associate Professor Dobryaev P.A., Associate Professor Nesterenko G.I. and other participants on the discussion of the President’s Message and institutional reforms were published in the city newspapers Zhaiyn үні, Oral өңірі, Ural and were posted on the portal BNews.kz. The speeches were broadcast on the Khabar TV channel, on regional news and in the programme “Жеті күн”.

The website of the faculty contains information on all departments, educational programmes, faculty, including personal pages, research projects, social partnerships, on international cooperation. Full information on the website of the faculty is presented separately in the specialties of the departments of "Physics", "Mathematics" and "Informatics". The Education section (<https://phim.wksu.kz/kz/category/23/109>) presents the development plan for the EP and its description. The scientific section of the department provides full information on the developed scientific projects, articles published, monographs, textbooks, seminars and conferences.

Information on personnel structure is presented in the table and the form of personal leaflets (<https://phim.wksu.kz/kz/article/209/130>). The site also provides information on cooperation and provision of work with professional practices, branches of the department and Sunday schools. Including on the website of the faculty and departments presented news sections (<https://phim.wksu.kz/kz/category/11/115>).

### ***Analytical part***

The analysis of accredited EPs according to this standard allows us to draw the following conclusions.

1. The information published by the EP management within the framework of the EP is accurate, objective and relevant. The Commission notes the systematic work on placing information on the site, which allows for transparency of activities. The EEC notes that there is complete information about the teachers involved in the implementation of the accredited EPs on the university website, while there are no audited financial statements in the context of the EP.

2. The administration of the EP uses a variety of ways to disseminate information to inform the general public and stakeholders. The Commission notes that the information is available on the official website WKSU named after M. Utemisov, in the journal “Vestnik WKSU”, in the monthly newspaper “Orken” on information stands, etc.

3. An important factor is the participation of the university and implemented EP in a variety of external evaluation procedures. The proof is that the university in 2013 WKSU successfully passed the accreditation of three educational programmes in the German agency ACQUIN.

4. Experts EEC notes that it is necessary to consider the direction of informing the public about cooperation and collaboration with partners, including the update of the EP.

5. A survey of students, conducted during the visit of the EEC of the IAAR, showed that satisfaction:

- Explaining to you before entering the rules and strategy of the EP: fully satisfied and partially satisfied - 99.2%.

Surveys of faculty members revealed that:

- Late receipt of information about events: never - 76.3%;

#### **Strengths / Best Practices**

- The publication in the framework of the EP includes information about the possibility of assigning qualifications at the end of the EP.

- The publication in the framework of the EP includes information about the passing scores and training opportunities provided by students.

- publication in the framework of the EP includes information about the employment opportunities of graduates.

#### **EEC recommendations**

The publication on its own web resource wksu.kz audited financial statements in the context of the EP.

The conclusions of the EEC according to the “Public Information” standard are strong - 3, satisfactory - 10, suggesting an improvement - 0.

### ***6.10 Standard "Standards in the context of individual specialties"***

#### ***The evidence part***

According to the model of the graduate in the EP of pedagogical and natural-science orientation, topics on psychology are included, such as: solving conflict situations, students' motivation, personality formation, determination of temperament, team cohesion, topics related to the use of modern ICT.

The development of information competence of students is taken into account in the EP. ICT discipline is studied in English and other elective disciplines are offered, such as, computer methods of physics (in English), computer modeling of physical processes, programming languages. Also, when studying mathematical disciplines, the software environment MathCad, GeoGebra, Mathematics, etc. is used. Experts from the EEC note that more opportunities are realized when using in the educational process EP 6M060100 - Mathematics of licensed modern data processing application packages.

For teachers annually held a scientific and methodological seminar on the use of pedagogical applied programmes. In 2018, a methodical week was held on e-learning, in which attention was focused on the continuity model (graduate student- “graduate-teacher” -level

teacher) of generations. In 2019, the methodical week was held in April of this year on the issue of the updated content of education.

In February 2019, a round table was held “My contribution to the implementation of the principle of scientific nature in the content of education”, aimed at improving the quality of training bachelors and masters in terms of updating the content of education in the secondary school of the Republic of Kazakhstan.

The methods of teaching disciplines are being improved, interactive methods are being applied, forms of training are being integrated (group, individual works). Since the beginning of the school year, the project “World of Children” has been implemented. A teacher who works in groups “Education”, undergoes a pedagogical internship at school, studies and analyzes the teaching methods of the updated content of education, the methodology of criterion assessment and conducts lessons in assigned classes. After completion, each teacher conducts a demonstration lesson, which is discussed at the scientific and methodological seminar of the department and the EMC faculty.

Students according to the schedule of the educational process from the 1st year undergo various kinds of practices in educational institutions.

The EP contains disciplines aimed at obtaining practical experience in the EP, in general, and major specialties, in particular:

- pedagogical practices in colleges, secondary school;
- training sessions at the department of physics and mathematics, in colleges.

According to the results of professional practice, a student, together with a school teacher, participates in the competition “The best student-teacher”

Graduates of the faculty were invited to conduct training sessions, lectures, master classes, seminars, courses: Safullin E.N., Polezhaeva G.V. and others.

There are scientific circles headed by the senior lecturer M.M. Kadyrbaev. Work in scientific circles, among other things, includes participation in various conferences, the publication of scientific articles. The experience of this work is taken into account in the preparation of educational and methodological recommendations, manuals, textbooks, including in the electronic version. An innovative methodological work is being carried out, which, in particular, is evidenced by the information technology competition among students of universities, colleges and schoolchildren. The competition was held in two directions: 1. Implemented systems (design, robotics, mechatronics); 2. Applied computer applications (software products). A republican scientific and practical online conference among undergraduates, students and students dedicated to the 25th anniversary of independence of the Republic of Kazakhstan “Youth and Modern Information Technologies” was also held.

It is planned to hold the conference “Youth: a step into science”, which is aimed at improving the quality of education in the conditions of scientific and technological progress.

The content of all disciplines of the EP and its structure are determined in accordance with the established requirements for the accounting and measuring instruments of education: curricula and programmes, the volume of academic load, the duration of academic periods, types of academic classes, the volume of educational material, etc.

#### ***Analytical part***

The analysis of accredited EPs according to this standard allows us to draw the following conclusions.

1. The EP management has demonstrated that students have the opportunity to listen to at least one discipline in the field of their specialization, taught by a practitioner. This is evidenced by the conduct of practical training in the framework of EP "5B011000 Physics" and "6M011000 Physics" in astronomy in the planetarium and astronomical observatory located in the Palace of schoolchildren and youth.

2. The management of the EP "6M011000 Physics" and "6M060100 Mathematics" demonstrated the strengthening of practical training in the field of specialization. This is

evidenced by the visit by members of the EEC to the practice base - "KazUITS. Kazakhstan University of Innovation and Telecommunication Systems.

3. Teaching in accredited EP is conducted on the basis of the achievements of science and practice in the field of specialization. It is possible to strengthen the result of the assimilation of theoretical knowledge when using in the educational process of EP "6M060100 Mathematics" licensed modern data processing application packages.

#### **Strengths / Best Practices**

- The graduates of the programme have theoretical knowledge in the field of psychology and skills in communications, analysis of personality and behavior, methods of preventing and resolving conflicts, students' motivation;

- within the framework of the EP, emphasis was placed on various types of practices;

- the content of all disciplines of the EP is based on and includes a clear relationship with the content of the fundamental natural sciences, such as mathematics, chemistry, physics

#### **EEC's recommendations**

Recommend by EP 6M060100 - Mathematics use in the educational process of licensed modern software packages of data processing.

Conclusions of the EEC on the standard "Standards in the context of individual specialties":

according to the "Education" profile according to the following programmes: "5B010900 Mathematics", "5B011000 Physics", "6M011000 Physics" have strong positions - 2, satisfactory - 4; suggesting improvements - 0.

according to the profile "Natural sciences, agricultural sciences, technical sciences and technologies" under the programme "6M060100 Mathematics" has strong positions - 1, satisfactory - 3 and implies improvement - 1.

## **(VII) REVIEW OF STRONG PARTIES / BEST PRACTICES FOR EACH STANDARD**

### **Standard "Management of the educational programme"**

- a quality policy has been published, based on a unique combination of European experimentation and Asian systematism;

- transparency of development of the development plan and the management system of the EP;

- Management of risks;

- participation of stakeholders in the collegiate bodies of administration of the EP, shown by the work of the academic council of the Faculty of Physics and Mathematics;

- openness and accessibility of the EP manual in the online mode through the website [wksu.kz](http://wksu.kz) for students, teaching staff, employers and other interested persons.

### **Information Management and Reporting Standard**

- the order is determined and information protection is ensured;

- the involvement of students, employees and teaching staff in the process of collecting and analyzing information by a center for sociological research;

- availability of a communication mechanism with students, employees and other stakeholders;

- the growth dynamics of the contingent of students in the accredited EP "5B010900 Mathematics" and "5B011000 Physics";

- availability of educational resources and support systems for students.

### **Standard "Development and approval of the educational programme"**

- Documentation of the procedure for the development of the EP and their approval at the institutional level;

- ensuring compliance of the accredited EPs with established goals, including the expected learning outcomes;
- the presence of the developed models of the graduate of the EP;
- clearly defined qualifications obtained upon completion of the EP;
- determination of the influence of disciplines and professional practices on the formation of learning outcomes;
- the presence in the structure of the EP of various activities corresponding to learning outcomes.

**Standard "Continuous monitoring and periodic evaluation of educational programmes"**

- implementation of monitoring and periodic assessment of EP in accordance with changes in the needs of society and the professional environment;
- ensuring the monitoring and periodic evaluation of the EP for the workload, academic performance and graduation of students;
- consideration of the educational environment and support services and their compliance with the objectives of the EP;
- participation of students, employers, students and teaching staff in the revision of the EP;
- revision of the content and structure of the EP in view of changes in the labor market, the requirements of employers and the social demand of society.

**Standard "Student-centered learning, teaching and assessment of progress"**

- ensuring respect and attention to various groups of students and their needs, providing them with flexible learning paths;
- Ensuring consistency, transparency and objectivity of the mechanism for assessing learning outcomes for each EP, including the appeal.

**Standard "Students"**

- the policy of forming a contingent of students of the EP from admission to graduation ensures the transparency of its procedures;
- special adaptation and support programmes for new and foreign students;
- the use of a mechanism to recognize the results of academic mobility of students;
- providing opportunities for external and internal mobility of students of EP, as well as assist them in obtaining external grants for training;
- providing trainees with places of practice, facilitating the employment of graduates;
- providing graduates with a certificate of qualification;
- monitoring of employment and professional activity of graduates of EP;
- support for gifted students.

**Standard "Faculty"**

- The university has an objective and transparent personnel policy, including recruitment, professional growth and staff development, ensuring the professional competence of the entire state;
- the university provides an opportunity for career growth and professional development of teaching staff of the EP;
- attraction to teaching practitioners from the school and the center of technical creativity;
- the leadership of the EP provides targeted actions for the development of young teachers;
- involvement of teaching staff in the community.

**Standard "Educational resources and student support systems"**

- compliance of library resources, including the fund of educational, methodical and scientific literature on general educational, basic and major disciplines on paper and electronic media, periodicals, access to scientific databases;
- access to educational Internet resources;
- examination of the results of research, final works, theses on plagiarism.

**Standard "Public Information"**

- the publication in the framework of the EP includes information about the possibility of assigning qualifications at the end of the EP.
- the publication in the framework of the EP includes information about the passing scores and training opportunities provided by students.
- publication in the framework of the EP includes information about the employment opportunities of graduates.

**Standard "Standards in the context of individual specialties"**

- the graduates of the programme have theoretical knowledge in the field of psychology and skills in communications, analysis of personality and behavior, methods of preventing and resolving conflicts, students' motivation;
- within the framework of the EP, emphasis was placed on various types of practices;
- the content of all disciplines of the OP is based on and includes a clear relationship with the content of the fundamental natural sciences, such as mathematics, chemistry, physics.

## **(VIII) REVIEW OF THE RECOMMENDATION ON IMPROVING QUALITY**

**Standard "Management of the educational programme"**

Improve the analysis and management of innovations in the framework of EP 5B010900 - Mathematics, including the introduction of innovative proposals.

**Information Management and Reporting Standard**

Develop and implement a long-term enrollment plan for students in EP 6M060100 - Mathematics.

**Standard "Development and approval of the educational programme"**

Consider the issue of joint EPs in mathematics and physics with foreign educational organizations and the involvement of Kazakhstani research organizations in the educational process.

Develop and implement a plan for the introduction of the elements of dual training in EP "5B010900 Mathematics", "6M0601000 Mathematics".

**Standard "Continuous monitoring and periodic evaluation of educational programmes"**

Develop criteria for evaluating all types of educational work of students (practice, laboratory work, all types of independent work of students and undergraduates).

**Standard "Student-centered learning, teaching and assessment of progress"**

Develop and implement their own methodological studies (for example, in the form of teaching aids) in the field of teaching elective disciplines of EP, especially disciplines taught in English.

Develop a long-term plan for the implementation of two-diploma education.

**Standard "Students"**

Conduct a series of round tables with graduates of recent years to exchange experience and integrate them into the alumni association.

**Standard "Faculty"**

To develop and introduce into the process of implementation of EP the mass open online courses on basic and major disciplines.

Develop and implement a promising long-term plan for the development of international and national academic faculty (incoming and outgoing) with universities included in the top 500 QS and top-10 ratings of the IAAR, as well as with faculty members in the top-50 rated by the IAAR.

**Standard "Educational resources and student support systems"**

Develop and implement a long-term plan for the re-equipment of the educational laboratories of the Faculty of Physics and Mathematics and the creation of a modern material and

technical base for the implementation of the 5B011000 Physics and 6M011000 Physics programmes.

To meet the needs of various groups of students, replenish the library resource pool with literature in English.

**Standard "Public Information"**

The publication on its own web resource wksu.kz audited financial statements in the context of the EP.

Standard "Standards in the context of individual specialties"

According to EP "6M060100 Mathematics", it is recommended to use licensed modern data processing application packages in the educational process.



**Evaluation table "SPECIALISED PROFILE PARAMETERS "**  
**for evaluating educational programmes "5B010900 Mathematics",**  
**"5B011000 Physics", "6M060100 Mathematics"**

№	№	Criteria for evaluation	Position of the organisation of education			
			Strong	Satisfying	Suggests improvement	Unsatisfactory
<b>Standard "Management of the educational programme"</b>						
1	1.	The university must have a published quality assurance policy.	+			
2	2.	The quality assurance policy should reflect the link between research, teaching and learning.		+		
3	3.	The university should demonstrate the development of a culture of quality assurance, including in the context of the EP.		+		
4	4.	Commitment to quality assurance should relate to any activity performed by contractors and partners (outsourcing), including in the implementation of joint / two-diploma education and academic mobility.		+		
5	5.	The EP's management ensures the transparency of the development plan of the EP based on the analysis of its functioning, the real positioning of the university and the focus of its activities on meeting the needs of the state, employers, stakeholders and students.	+			
6	6.	The EP's management demonstrates the functioning of the formation mechanisms and regular review of the EP development plan and monitoring its implementation, assessing the achievement of learning objectives, meeting the needs of students, employers and society, making decisions aimed at continuous improvement of EP.		+		
7	7.	EP management should involve representatives of groups of stakeholders, including employers, students and teaching staff in the development of EP development plans.		+		
8	8.	The EP management must demonstrate the individuality and uniqueness of the EP development plan, its consistency with the national development priorities and the development strategy of the educational organization.		+		
9	9.	The university must demonstrate a clear definition of those responsible for the business processes within the EP, the unambiguous distribution of staff duties, and the delineation of the functions of collegial bodies.		+		
10	10.	The EP's management must provide evidence of the transparency of the educational programme management system.	+			
11	11.	The EP management must demonstrate the successful functioning of the internal quality assurance system of the EP, including its design, management and monitoring, their improvement, making decisions based on facts.		+		
12	12.	EP management should implement risk management.	+			

13	13.	EP management should ensure the participation of representatives of interested parties (employers, teaching staff, students) in the collegial bodies of the educational programme management, as well as their representativeness in making decisions on the management of the educational programme.	+			
14	14.	The university should demonstrate the management of innovations in the framework of the EP, including the analysis and implementation of innovative proposals.		+		
15	15.	EP management must demonstrate evidence of openness and accessibility for students, teaching staff, employers and other interested parties.	+			
16	16.	The management of EP must be trained in educational management programmes.		+		
17	17.	The EP management must strive to ensure that the progress made since the last external quality assurance procedure was taken into account in preparing for the next procedure.		+		
<b>Total standard</b>			<b>6</b>	<b>11</b>	<b>0</b>	<b>0</b>
<b>Information Management and Reporting Standard</b>						
18	1.	The university should ensure the functioning of the system for collecting, analyzing and managing information through the use of modern information and communication technologies and software.		+		
19	2.	The EP management must demonstrate the systematic use of the processed, adequate information to improve the internal quality assurance system.		+		
20	3.	Within the EP there should be a system of regular reporting, reflecting all levels of the structure, including an assessment of the effectiveness and efficiency of the activities of departments and departments, and research.		+		
21	4.	The university should establish the frequency, forms and methods of evaluating the management of EP, the activities of collegial bodies and structural divisions, senior management, the implementation of research projects.		+		
22	5.	The university must demonstrate how to determine the order and ensure the protection of information, including determining those responsible for the accuracy and timeliness of information analysis and data provision.	+			
23	6.	An important factor is the involvement of students, employees and teaching staff in the process of collecting and analyzing information, as well as making decisions based on them.	+			
24	7.	EP management must demonstrate the presence of a communication mechanism with students, employees and other stakeholders, including the availability of conflict resolution mechanisms.	+			
25	8.	The university should provide a measure of the degree of satisfaction of the needs of faculty, staff and students in the framework of the EP and demonstrate evidence to eliminate the detected deficiencies.		+		
26	9.	The university should evaluate the effectiveness and efficiency of activities, including in the context of the OP.		+		
		<i>Information collected and analyzed by the university should take into account:</i>				
27	10.	key performance indicators;		+		
28	11.	the dynamics of the contingent of students in the context of forms and types;	+			
29	12.	level of performance, student achievement and expulsion;	+			

30	13.	students' satisfaction with the implementation of the EP and the quality of education at the university;	+			
31	14.	availability of educational resources and support systems for students;	+			
32	15.	Employment and career growth of graduates.	+			
33	16.	Trainees, employees and teaching staff must document their consent to the processing of personal data.	+			
34	17.	EP management should contribute to the provision of all necessary information in relevant fields of science.		+		
<b>Total standart</b>			<b>9</b>	<b>8</b>	<b>0</b>	<b>0</b>
<b>Standard "Development and approval of educational programmes"</b>						
35	1.	The university should determine and document the procedures for the development of EP and their approval at the institutional level.	+			
36	2.	EP management must ensure that the developed EPs comply with the established goals, including the expected learning outcomes.	+			
37	3.	The management of EP must ensure the availability of developed models of graduate EP, describing learning outcomes and personal qualities.	+			
38	4.	The management of the EP must demonstrate an external examination of the EP.		+		
39	5.	Qualifications obtained at the end of the EP should be clearly defined, explained and correspond to a certain level of the NQF.	+			
40	6.	The management of EP should determine the influence of disciplines and professional practices on the formation of learning outcomes.	+			
41	7.	An important factor is the possibility of preparing students for professional certification.		+		
42	8.	EP management must provide evidence of the participation of students, faculty and other stakeholders in the development of EP, ensuring their quality.		+		
43	9.	The complexity of the EP should be clearly defined in Kazakhstan loans and ECTS.		+		
44	10.	The management of EP must provide the content of academic disciplines and learning outcomes to the level of education (bachelor, master, doctoral).		+		
45	11.	The structure of the EP should provide for various types of activities corresponding to the learning outcomes.	+			
46	12.	An important factor is the presence of joint EPs with foreign educational organizations.		+		
<b>Total Standart</b>			<b>6</b>	<b>6</b>	<b>0</b>	<b>0</b>
<b>Standard "Continuous monitoring and periodic evaluation of educational programmes"</b>						
47	1.	The university should monitor and periodically evaluate the EP in order to achieve the goal and meet the needs of students and society. The results of these processes are aimed at continuous improvement of the EP.		+		
		<i>Monitoring and periodic evaluation of the EP should consider:</i>				

48	2.	the content of the programmes in the light of the latest achievements of science in a particular discipline to ensure the relevance of the discipline being taught;		+		
49	3.	changes in the needs of society and the professional environment;	+			
50	4.	workload, performance and graduation of students;	+			
51	5.	the effectiveness of assessment procedures for students;		+		
52	6.	expectations, needs and satisfaction of students with EP training;		+		
53	7.	educational environment and support services and their compliance with the objectives of the EP.	+			
54	8.	The university and the administration of the EP must provide evidence of the participation of students, employers and other stakeholders in the revision of the EP.	+			
55	9.	All interested parties should be informed of any actions planned or taken in relation to the EP. All changes made to the EP should be published.		+		
56	10.	EP management should ensure a review of the content and structure of the EP, taking into account changes in the labor market, employers' requirements and the social demands of society.	+			
<b>Total Standart</b>			<b>5</b>	<b>5</b>	<b>0</b>	<b>0</b>
<b>Standard "Student-centered learning, teaching and performance evaluation"</b>						
57	1.	EP management must ensure respect and attention to different groups of students and their needs, providing them with flexible learning paths.	+			
58	2.	EP management must ensure the use of various forms and methods of teaching and learning.		+		
59	3.	An important factor is the availability of own research in the field of teaching methods of academic disciplines EP.			+	
60	4.	EP management must demonstrate the presence of a feedback system on the use of various teaching methods and evaluation of learning outcomes.		+		
61	5.	The management of the EP should demonstrate support for the autonomy of students with simultaneous guidance and assistance from the teacher.		+		
62	6.	The EP's management must demonstrate the availability of a procedure for responding to students' complaints.		+		
63	7.	The university should ensure consistency, transparency and objectivity of the mechanism for assessing the results of training for each EP, including the appeal.	+			
64	8.	The university must ensure that the procedures for evaluating the results of the training of students in EP correspond to the planned learning outcomes and the objectives of the programme. Criteria and assessment methods in the framework of the EP should be published in advance.		+		
65	9.	In a higher education institution, mechanisms should be defined to ensure that each graduate from the EP study results and ensure the completeness of their formation.		+		
66	10.	Assessors should possess modern methods of assessing learning outcomes and regularly improve their skills in this area.		+		
<b>Total standart</b>			<b>2</b>	<b>7</b>	<b>1</b>	<b>0</b>

<b>Standard "Students"</b>						
67	1.	The university should demonstrate the policy of forming a contingent of students from admission to graduation and ensure the transparency of its procedures. The procedures governing the life cycle of students (from admission to completion) must be defined, approved, published.	+			
68	2.	The EP's management should demonstrate the implementation of special adaptation and support programmes for new-comers and foreign students.	+			
69	3.	The university must demonstrate the compliance of its actions with the Lisbon Recognition Convention.		+		
70	4.	The university should cooperate with other educational organizations and national centers of the European Network of National Information Centers for Academic Recognition and Mobility / National Academic Information Recognition Centers ENIC / NARIC to ensure comparable recognition of qualifications.		+		
71	5.	EP management must demonstrate the presence and application of a mechanism to recognize the results of academic mobility of students, as well as the results of additional, formal and non-formal education.	+			
72	6.	The university should provide an opportunity for external and internal mobility of students of EP, as well as assist them in obtaining external grants for training.	+			
73	7.	The management of EP should make the maximum amount of effort to provide students with places of practice, to facilitate the employment of graduates, to maintain communication with them.	+			
74	8.	The university must provide graduates of EP with documents confirming their qualifications, including the achieved learning outcomes, as well as the context, content and status of the education received and evidence of its completion.	+			
75	9.	An important factor is the monitoring of employment and professional activities of graduates of EP.	+			
76	10.	EP management should actively encourage students to self-education and development outside the main programme (extracurricular activities).		+		
77	11.	An important factor is the existence of a valid alumni association / association.		+		
78	12.	An important factor is the availability of a support mechanism for gifted students.	+			
<b>Total standart</b>			<b>8</b>	<b>4</b>	<b>0</b>	<b>0</b>
<b>Standard "Teaching Staff"</b>						
79	1.	The university should have an objective and transparent personnel policy, including recruitment, professional growth and staff development, ensuring the professional competence of the entire state.	+			
80	2.	The university should demonstrate the compliance of the staff potential of the faculty with the development strategy of the university and the specifics of the EP.		+		
81	3.	EP management must demonstrate an awareness of responsibility for its employees and ensuring favorable working conditions for them.		+		
82	4.	The management of EP should demonstrate a change in the role of the teacher in connection with the transition to student-		+		

		centered learning.				
83	5.	The university should determine the contribution of teaching staff to the implementation of the university's development strategy, and other strategic documents.		+		
84	6.	The university should provide opportunities for career growth and professional development of teaching staff of the EP.	+			
85	7.	The management of EP should involve practitioners from relevant fields in the teaching.	+			
86	8.	The management of EP should provide targeted actions for the development of young teachers.	+			
87	9.	The university should demonstrate the motivation of professional and personal development of teachers of EP, including the promotion of both the integration of scientific activities and education, and the use of innovative teaching methods.		+		
88	10.	An important factor is the active use of information and communication technologies in the educational process (for example, on-line training, e-portfolio, MEP, etc.).			+	
89	11.	An important factor is the development of academic mobility in the framework of the EP, attracting the best foreign and domestic teachers.		+		
90	12.	An important factor is the involvement of teaching staff in the community (the role of teaching staff in the education system, in the development of science, the region, creating a cultural environment, participation in exhibitions, creative competitions, charity programmes, etc.).	+			
<b>Total standart</b>			<b>5</b>	<b>6</b>	<b>1</b>	<b>0</b>
<b>Standard "Educational resources and student support systems"</b>						
91	1.	EP management must demonstrate the adequacy of material and technical resources and infrastructure.		+		
92	2.	EP management must demonstrate the availability of support procedures for various groups of students, including information and counseling.		+		
		<i>EP management must demonstrate the availability of support procedures for various groups of students, including information and counseling.</i>				
93	3.	technological support for students and teaching staff in accordance with educational programmes (for example, online training, modeling, databases, data analysis programmes);		+		
94	4.	library resources, including the fund of educational, methodical and scientific literature on general educational, basic and major disciplines on paper and electronic media, periodicals, access to scientific databases;	+			
95	5.	Access to educational online resources	+			
96	6.	examination of the results of research, final works, dissertations on plagiarism;	+			
97	7.	WI-FI functioning on the territory of the organization of education.		+		
98	8.	The university should strive to ensure that the training equipment and software used for the development of EP, were similar to those used in their respective industries.		+		
99	9.	The university must ensure compliance with safety requirements in the learning process.		+		

100	10.	The university should strive to take into account the needs of various groups of students in the context of EP (adults, workers, foreign students, and students with disabilities).			+	
<b>Total standart</b>			<b>3</b>	<b>6</b>	<b>1</b>	<b>0</b>
<b>Standard "Public Information"</b>						
100		<i>The information published by the university within the EP should be accurate, objective, relevant and should include:</i>				
101	1.	implemented programmes, indicating the expected learning outcomes;		+		
102	2.	information about the possibility of assigning qualifications at the end of the EP;	+			
103	3.	information about teaching, learning, assessment procedures;		+		
104	4.	information about the scores and training opportunities provided by students;	+			
105	5.	information about graduate employment opportunities.	+			
106	6.	EP management should use a variety of ways to disseminate information (including the media, web resources, other information networks) to inform the general public and stakeholders.		+		
107	7.	Public awareness should include support and clarification of national development programmes of the country and the system of higher and postgraduate education.		+		
108	8.	The university should publish audited financial statements on its own web resource.		+		
109	9.	The university should demonstrate the information on the web resource describing the university as a whole and in the context of the EP.		+		
110	10.	An important factor is the availability of adequate and objective information about the teaching staff of the EP, in the context of personalities.		+		
111	11.	An important factor is informing the public about cooperation and interaction with partners in the framework of EP, including with scientific / consulting organizations, business partners, social partners and educational organizations.		+		
112	12.	The university should post information and links to external resources on the results of external assessment procedures.		+		
113	13.	An important factor is the participation of the university and the EP implemented in a variety of external assessment procedures.		+		
<b>Total standart</b>			<b>3</b>	<b>10</b>	<b>0</b>	<b>0</b>
<b>Standards in the context of individual specialties</b>						
<b>Education</b>						
		<i>Educational programmes in the direction of "Education" must meet the following requirements:</i>				
114	1.	EP's management must demonstrate that graduates have a programme of theoretical knowledge in the field of psychology and skills in communications, analysis of personality and behavior, methods of conflict prevention and resolution, students' motivation;	+			
115	2.	EP management must demonstrate the literacy of graduates of the programme in the field of information technology.		+		
116	3.	EP management must demonstrate the presence of disciplines in the programme that teach innovative teaching methods and training planning, incl. interactive teaching methods, teaching		+		

		methods with high involvement and motivation of students (games, case studies / situations, the use of multimedia);				
117	4.	The management of EP must demonstrate to students the ability to teach self-study skills;		+		
118	5.	Within the framework of the EP, emphasis should be placed on various types of practices: - attendance of lectures and classes conducted by teachers; - holding special seminars and discussions of the latest methodologies and learning technologies; - as part of the programme, students should be able to attend at least one discipline in the field of their specialization, taught by a practitioner;	+			
119	6.	Under the EP, students should be provided with the knowledge and skills of systems and methods of pedagogy in the world, as well as knowledge in the field of education management.		+		
<b>Total Standart</b>			<b>2</b>	<b>4</b>	<b>0</b>	<b>0</b>
<b>NATURAL SCIENCES, AGRICULTURAL SCIENCES, TECHNICAL SCIENCES, AND TECHNOLOGIES</b>						
		<i>Educational programmes in the areas of "Natural Sciences", "Engineering Sciences and Technology", such as "Mathematics", "Physics", "Information Systems", etc., must meet the following requirements:</i>				
120	1.	In order to familiarize students with the professional environment and current issues in the field of specialization, as well as to acquire skills based on theoretical training, the education programme should include disciplines and activities aimed at gaining practical experience and skills in the specialty in general and the major subjects in particular .ch .: - excursions to enterprises in the field of specialization (factories, workshops, research institutes, laboratories, educational and experimental farms, etc.), - carrying out separate occupations or the whole disciplines at the enterprise of specialization, - holding seminars to solve practical problems that are relevant to enterprises in the field of specialization, etc.		+		
121	2.	The faculty involved in the education programme should include full-time teachers with long-term experience as a staff member in enterprises in the field of specialization of the education programme.		+		
122	3.	The content of all disciplines of the EP should be based in one way or another and include a clear relationship with the content of the fundamental natural sciences, such as mathematics, chemistry, physics.	+			
123	4.	The management of the EP should provide measures to enhance practical training in the field of specialization.		+		
124	5.	The management of EP should provide training for students in the application of modern information technologies.			+	
<b>Total Standart</b>			<b>1</b>	<b>3</b>	<b>1</b>	<b>0</b>
<b>Total</b>			<b>50</b>	<b>70</b>	<b>4</b>	<b>0</b>

**of evaluation of the educational programme "6M011000 Physics"**

№	№	Criteria for evaluation	Position of the organisation of education			
			Strong	Satisfying	Suggests improvement	Unsatisfactory
<b>Standard "Management of the educational programme"</b>						
1	18.	The university must have a published quality assurance policy.	+			
2	19.	The quality assurance policy should reflect the link between research, teaching and learning.		+		
3	20.	The university should demonstrate the development of a culture of quality assurance, including in the context of the EP.		+		
4	21.	Commitment to quality assurance should relate to any activity performed by contractors and partners (outsourcing), including in the implementation of joint / two-diploma education and academic mobility.		+		
5	22.	The EP's management ensures the transparency of the development plan of the EP based on the analysis of its functioning, the real positioning of the university and the focus of its activities on meeting the needs of the state, employers, stakeholders and students.	+			
6	23.	The EP's management demonstrates the functioning of the formation mechanisms and regular review of the EP development plan and monitoring its implementation, assessing the achievement of learning objectives, meeting the needs of students, employers and society, making decisions aimed at continuous improvement of EP.		+		
7	24.	EP management should involve representatives of groups of stakeholders, including employers, students and teaching staff in the development of EP development plans.		+		
8	25.	The EP management must demonstrate the individuality and uniqueness of the EP development plan, its consistency with the national development priorities and the development strategy of the educational organization.		+		
9	26.	The university must demonstrate a clear definition of those responsible for the business processes within the EP, the unambiguous distribution of staff duties, and the delineation of the functions of collegial bodies.		+		
10	27.	The EP's management must provide evidence of the transparency of the educational programme management system.	+			
11	28.	The EP management must demonstrate the successful functioning of the internal quality assurance system of the EP, including its design, management and monitoring, their improvement, making decisions based on facts.		+		
12	29.	EP management should implement risk management.	+			
13	30.	EP management should ensure the participation of representatives of interested parties (employers, teaching staff, students) in the collegial bodies of the educational programme management, as well as their representativeness in making	+			

		decisions on the management of the educational programme.				
14	31.	The university should demonstrate the management of innovations in the framework of the EP, including the analysis and implementation of innovative proposals.		+		
15	32.	EP management must demonstrate evidence of openness and accessibility for students, teaching staff, employers and other interested parties.	+			
16	33.	The management of EP must be trained in educational management programmes.		+		
17	34.	The EP management must strive to ensure that the progress made since the last external quality assurance procedure was taken into account in preparing for the next procedure.		+		
<b>Total standart</b>			<b>6</b>	<b>11</b>	<b>0</b>	<b>0</b>
<b>Information Management and Reporting Standard</b>						
18	18.	The university should ensure the functioning of the system for collecting, analyzing and managing information through the use of modern information and communication technologies and software.		+		
19	19.	The EP management must demonstrate the systematic use of the processed, adequate information to improve the internal quality assurance system.		+		
20	20.	Within the EP there should be a system of regular reporting, reflecting all levels of the structure, including an assessment of the effectiveness and efficiency of the activities of departments and departments, and research.		+		
21	21.	The university should establish the frequency, forms and methods of evaluating the management of EP, the activities of collegial bodies and structural divisions, senior management, the implementation of research projects.		+		
22	22.	The university must demonstrate how to determine the order and ensure the protection of information, including determining those responsible for the accuracy and timeliness of information analysis and data provision.	+			
23	23.	An important factor is the involvement of students, employees and teaching staff in the process of collecting and analyzing information, as well as making decisions based on them.	+			
24	24.	EP management must demonstrate the presence of a communication mechanism with students, employees and other stakeholders, including the availability of conflict resolution mechanisms.	+			
25	25.	The university should provide a measure of the degree of satisfaction of the needs of faculty, staff and students in the framework of the EP and demonstrate evidence to eliminate the detected deficiencies.		+		
26	26.	The university should evaluate the effectiveness and efficiency of activities, including in the context of the EP.		+		
		<i>Information collected and analyzed by the university should take into account:</i>				
27	27.	key performance indicators;		+		
28	28.	the dynamics of the contingent of students in the context of forms and types;	+			
29	29.	level of performance, student achievement and expulsion;	+			
30	30.	students' satisfaction with the implementation of the EP and the quality of education at the university;	+			
31	31.	availability of educational resources and support systems for	+			

		students;				
32	32.	Employment and career growth of graduates.	+			
33	33.	Trainees, employees and teaching staff must document their consent to the processing of personal data.	+			
34	34.	EP management should contribute to the provision of all necessary information in relevant fields of science.		+		
<b>Total Standart</b>			<b>9</b>	<b>8</b>	<b>0</b>	<b>0</b>
<b>Standard "Development and approval of educational programmes"</b>						
35	13.	The university should determine and document the procedures for the development of EP and their approval at the institutional level.	+			
36	14.	EP management must ensure that the developed EPs comply with the established goals, including the expected learning outcomes.	+			
37	15.	The management of EP must ensure the availability of developed models of graduate EP, describing learning outcomes and personal qualities.	+			
38	16.	The management of the EP must demonstrate an external examination of the EP.		+		
39	17.	Qualifications obtained at the end of the EP should be clearly defined, explained and correspond to a certain level of the NQF.	+			
40	18.	The management of EP should determine the influence of disciplines and professional practices on the formation of learning outcomes.	+			
41	19.	An important factor is the possibility of preparing students for professional certification.		+		
42	20.	EP management must provide evidence of the participation of students, faculty and other stakeholders in the development of EP, ensuring their quality.		+		
43	21.	The complexity of the EP should be clearly defined in Kazakhstan loans and ECTS.		+		
44	22.	The management of EP must provide the content of academic disciplines and learning outcomes to the level of education (bachelor, master, doctoral).		+		
45	23.	The structure of the EP should provide for various types of activities corresponding to the learning outcomes.	+			
46	24.	An important factor is the presence of joint EPs with foreign educational organizations.		+		
<b>Total standart</b>			<b>6</b>	<b>6</b>	<b>0</b>	<b>0</b>
<b>Standard "Continuous monitoring and periodic evaluation of educational programmes"</b>						
47	11.	The university should monitor and periodically evaluate the EP in order to achieve the goal and meet the needs of students and society. The results of these processes are aimed at continuous improvement of the EP.		+		
		<i>Monitoring and periodic evaluation of the EP should consider:</i>				
48	12.	the content of the programmes in the light of the latest achievements of science in a particular discipline to ensure the relevance of the discipline being taught;		+		

49	13.	changes in the needs of society and the professional environment;	+			
50	14.	workload, performance and graduation of students;	+			
51	15.	the effectiveness of assessment procedures for students;		+		
52	16.	expectations, needs and satisfaction of students with EP training;		+		
53	17.	educational environment and support services and their compliance with the objectives of the EP.	+			
54	18.	The university and the administration of the EP must provide evidence of the participation of students, employers and other stakeholders in the revision of the EP.	+			
55	19.	All interested parties should be informed of any actions planned or taken in relation to the EP. All changes made to the EP should be published.		+		
56	20.	EP management should ensure a review of the content and structure of the EP, taking into account changes in the labor market, employers' requirements and the social demands of society.	+			
<b>Total standart</b>			<b>5</b>	<b>5</b>	<b>0</b>	<b>0</b>
<b>Standard "Student-centered learning, teaching and performance evaluation"</b>						
57	11.	EP management must ensure respect and attention to different groups of students and their needs, providing them with flexible learning paths.	+			
58	12.	EP management must ensure the use of various forms and methods of teaching and learning.		+		
59	13.	An important factor is the availability of own research in the field of teaching methods of academic disciplines EP.			+	
60	14.	EP management must demonstrate the presence of a feedback system on the use of various teaching methods and evaluation of learning outcomes.		+		
61	15.	The management of the EP should demonstrate support for the autonomy of students with simultaneous guidance and assistance from the teacher.		+		
62	16.	The EP's management must demonstrate the availability of a procedure for responding to students' complaints.		+		
63	17.	The university should ensure consistency, transparency and objectivity of the mechanism for assessing the results of training for each EP, including the appeal.	+			
64	18.	The university must ensure that the procedures for evaluating the results of the training of students in EP correspond to the planned learning outcomes and the objectives of the programme. Criteria and assessment methods in the framework of the EP should be published in advance.		+		
65	19.	In a higher education institution, mechanisms should be defined to ensure that each graduate from the EP study results and ensure the completeness of their formation.		+		
66	20.	Assessors should possess modern methods of assessing learning outcomes and regularly improve their skills in this area.		+		
<b>Total standart</b>			<b>2</b>	<b>7</b>	<b>1</b>	<b>0</b>
<b>Standard "Students"</b>						

67	13.	The university should demonstrate the policy of forming a contingent of students from admission to graduation and ensure the transparency of its procedures. The procedures governing the life cycle of students (from admission to completion) must be defined, approved, published.	+			
68	14.	The EP's management should demonstrate the implementation of special adaptation and support programmes for new-comers and foreign students.	+			
69	15.	The university must demonstrate the compliance of its actions with the Lisbon Recognition Convention.	+			
70	16.	The university should cooperate with other educational organizations and national centers of the European Network of National Information Centers for Academic Recognition and Mobility / National Academic Information Recognition Centers ENIC / NARIC to ensure comparable recognition of qualifications.		+		
71	17.	EP management must demonstrate the presence and application of a mechanism to recognize the results of academic mobility of students, as well as the results of additional, formal and non-formal education.	+			
72	18.	The university should provide an opportunity for external and internal mobility of students of EP, as well as assist them in obtaining external grants for training.	+			
73	19.	The management of EP should make the maximum amount of effort to provide students with places of practice, to facilitate the employment of graduates, to maintain communication with them.	+			
74	20.	The university must provide graduates of EP with documents confirming their qualifications, including the achieved learning outcomes, as well as the context, content and status of the education received and evidence of its completion.	+			
75	21.	An important factor is the monitoring of employment and professional activities of graduates of EP.	+			
76	22.	EP management should actively encourage students to self-education and development outside the main programme (extracurricular activities).		+		
77	23.	An important factor is the existence of a valid alumni association / association.		+		
78	24.	An important factor is the availability of a support mechanism for gifted students.	+			
<b>Total standart</b>			<b>9</b>	<b>3</b>	<b>0</b>	<b>0</b>
<b>Standard "Teaching staff"</b>						
79	13.	The university should have an objective and transparent personnel policy, including recruitment, professional growth and staff development, ensuring the professional competence of the entire state.	+			
80	14.	The university should demonstrate the compliance of the staff potential of the faculty with the development strategy of the university and the specifics of the EP.		+		
81	15.	EP management must demonstrate an awareness of responsibility for its employees and ensuring favorable working conditions for them.		+		
82	16.	The management of EP should demonstrate a change in the role of the teacher in connection with the transition to student-centered learning.		+		

83	17.	The university should determine the contribution of teaching staff to the implementation of the university's development strategy, and other strategic documents.		+		
84	18.	The university should provide opportunities for career growth and professional development of teaching staff of the EP.	+			
85	19.	The management of EP should involve practitioners from relevant fields in the teaching.	+			
86	20.	The management of EP should provide targeted actions for the development of young teachers.	+			
87	21.	The university should demonstrate the motivation of professional and personal development of teachers of EP, including the promotion of both the integration of scientific activities and education, and the use of innovative teaching methods.		+		
88	22.	An important factor is the active use of information and communication technologies in the educational process (for example, on-line training, e-portfolio, MEP, etc.).			+	
89	23.	An important factor is the development of academic mobility in the framework of the EP, attracting the best foreign and domestic teachers.		+		
90	24.	An important factor is the involvement of teaching staff in the community (the role of teaching staff in the education system, in the development of science, the region, creating a cultural environment, participation in exhibitions, creative competitions, charity programmes, etc.).	+			
<b>Total standart</b>			<b>5</b>	<b>6</b>	<b>1</b>	<b>0</b>
<b>Standard "Educational resources and student support systems"</b>						
91	1.	EP management must demonstrate the adequacy of material and technical resources and infrastructure.		+		
92	2.	EP management must demonstrate the availability of support procedures for various groups of students, including information and counseling.		+		
		<i>The EP management must demonstrate the compliance of information resources with the specifics of the EP, including compliance with:</i>				
93	3.	technological support for students and teaching staff in accordance with educational programmes (for example, online training, modeling, databases, data analysis programmes);		+		
94	4.	library resources, including the fund of educational, methodical and scientific literature on general educational, basic and major disciplines on paper and electronic media, periodicals, access to scientific databases;	+			
95	5.	Access to educational online resources	+			
96	6.	examination of the results of research, final works, dissertations on plagiarism;	+			
97	7.	WI-FI functioning on the territory of the organization of education.		+		
98	8.	The university should strive to ensure that the training equipment and software used for the development of EP, were similar to those used in their respective industries.		+		
99	9.	The university must ensure compliance with safety requirements in the learning process.		+		
100	10.	The university should strive to take into account the needs of various groups of students in the context of EP (adults,		+		

		workers, foreign students, and students with disabilities).				
<b>Total standart</b>			<b>3</b>	<b>7</b>	<b>0</b>	<b>0</b>
<b>Standard "Public Information"</b>						
100		<i>The information published by the university within the EP should be accurate, objective, relevant and should include:</i>				
101	1.	implemented programmes, indicating the expected learning outcomes;		+		
102	2.	information about the possibility of assigning qualifications at the end of the EP;	+			
103	3.	information about teaching, learning, assessment procedures;		+		
104	4.	information about the scores and training opportunities provided by students;	+			
105	5.	information about graduate employment opportunities.	+			
106	6.	EP management should use a variety of ways to disseminate information (including the media, web resources, other information networks) to inform the general public and stakeholders.		+		
107	7.	Public awareness should include support and clarification of national development programmes of the country and the system of higher and postgraduate education.		+		
108	8.	The university should publish audited financial statements on its own web resource.		+		
109	9.	The university should demonstrate the information on the web resource describing the university as a whole and in the context of the EP.		+		
110	10.	An important factor is the availability of adequate and objective information about the teaching staff of the EP, in the context of personalities.		+		
111	11.	An important factor is informing the public about cooperation and interaction with partners in the framework of EP, including with scientific / consulting organizations, business partners, social partners and educational organizations.		+		
112	12.	The university should post information and links to external resources on the results of external assessment procedures.		+		
113	13.	An important factor is the participation of the university and the EP implemented in a variety of external assessment procedures.		+		
<b>Total Standart</b>			<b>3</b>	<b>10</b>	<b>0</b>	<b>0</b>
<b>Standards in the context of individual specialties</b>						
<b>Education</b>						
		<i>Educational programmes in the direction of "Education" must meet the following requirements:</i>				
114	1.	EP's management must demonstrate that graduates have a programme of theoretical knowledge in the field of psychology and skills in communications, analysis of personality and behavior, methods of conflict prevention and resolution, students' motivation;	+			
115	2.	EP management must demonstrate the literacy of graduates of the programme in the field of information technology.		+		
116	3.	EP management must demonstrate the presence of disciplines in the programme that teach innovative teaching methods and training planning, incl. interactive teaching methods, teaching		+		

		methods with high involvement and motivation of students (games, case studies / situations, the use of multimedia);				
117	4.	The management of EP must demonstrate to students the ability to teach self-study skills;		+		
118	5.	Within the framework of the EP, emphasis should be placed on various types of practices: - attendance of lectures and classes conducted by teachers; - holding special seminars and discussions of the latest methodologies and learning technologies; - as part of the programme, students should be able to attend at least one discipline in the field of their specialization, taught by a practitioner;	+			
119	6.	Under the EP, students should be provided with the knowledge and skills of systems and methods of pedagogy in the world, as well as knowledge in the field of education management.		+		
<b>Total standart</b>			<b>2</b>	<b>4</b>	<b>0</b>	<b>0</b>
<b>Total</b>			<b>50</b>	<b>67</b>	<b>2</b>	<b>0</b>