«АККРЕДИТТЕУ ЖӘНЕ РЕЙТИНГТІҢ ТӘУЕЛСІЗ АГЕНТТІГІ» КЕМ

НУ «НЕЗАВИСИМОЕ АГЕНТСТВО АККРЕДИТАЦИИ И РЕЙТИНГА»

INDEPENDENT AGENCY FOR ACCREDITATION AND RATING

Addressed to the
Accreditation council of IAAR

REPORT

on the results of the work of the external evaluation panel
Compliance with Initial programme accreditation standards (Ex-Ante)
Educational programme 510100 Mathematics MA Physical and Mathematical Sciences and Fundamental Informatics
Osh State University

from «19» to «21» October 2020

Osh city **«21» October 2020**

INDEPENDENT ACCREDITATION AND RATING AGENCY
External expert panel

Addressed to the
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(I) LIST OF SYMBOLS AND ABBREVIATIONS

AMP – administrative and management personnel
HVE – higher vocational education
SEW – Socially educational work
TI – Tertiary Institution
SCC - State Certification Commission
SES – State Education Standard
IC – Instrumental Competences
FMIT - Faculty of Mathematics and Information Technology
CED – Catalogue of Elective Disciplines
MES KR – Ministry of Education and Science of the Kyrgyz Republic
MS – Methodical Council
IAAR – Non-profit Institution «Independent Accreditation and Rating Agency»
RW– research work
CC – core curricula
EP – Education Programme
SC – scientific competences
OshSu – Osh State University
PC – professional competencies
TS – Teaching staff
AP – Academic Programme
LO – learning outcomes
AC – Academic Curriculum
SPCC – Social, Personal and Cultural Competences
Media – Mass media
IA – Individual Assignment
DIA – Academic-information Department
The Ministry of Education and Science
UMM – methodological materials
UMK – modules
LW – Learning work
SC – Scientific Council
C – Curriculum
TC – Training Centre
ITSC – Information Technology Service Centre
CCC – Core Curriculum Cycle
AF – Assessment Fund

(II) INTRODUCTION

According to the order of the Independent Agency of Accreditation and Rating from 19 to 21 October 2020 external expert commission conducted conformity assessment of EP 710200 Information Systems and Technologies (BA), 710200 Information Systems and Technologies (Information Systems and Technology in Economics) (MA), 710100 Information Technology and Computing (BA), 710300 Applied informatics (BA), 710300 Applied computer science (MA), 510200 Applied mathematics and computer science (BA), 510200 Applied mathematics and computer science (MA), 550200 Physico- education (BA), 550200 Physico- mathematical education (MA), 510400 Physics (MA), 510100 Mathematics (MA) of Osh State University standards of program and primary program accreditation of NIAR (65-20-OD from 03.09.2020).

The report of the External Expert Commission (EEC) contains an assessment of the conformity of the activities of Osh State University within the framework of the programme and initial programme accreditation criteria of NIAR, Recommendations of EEC for further improvement of the parameters of the programme and primary programme profile.

Composition of EEC:

The Chairman - Kosov Vladimir Nikolayevich, PhD professor of Kazakh National Pedagogical University named after Abai (Almaty, Republic of Kazakhstan).

Foreign expert - Urmashev Baidaule Amantayevich, dean of the Faculty of Information Technology Al-Farabi Kazakh National University. (Almaty, Republic of Kazakhstan).

Foreign expert - White Yuri Eduardovich, K.f.-m.n., Assistant Professor, Vice-chancellor of Training Work of the Grodno State University named after Yankee Kupala (Grodno, Republic of Belarus).

Foreign expert - Gudenko Aleksey Viktorovich, Dr. Alexander Viktorovich, Assistant Professor of the Department of General Physics of the Moscow State Institute of Physics and Technology (Moscow, Russian Federation).

Foreign expert - Tashev Bekbolat Ahanovich, Phd, senior lecturer of the Department of Plasma Physics, Nanotechnology and Computer Physics of the Kazakh National Pedagogical University. Abaya (Almaty, Republic of Kazakhstan).

Foreign expert - Ayman Amangeldiyevna Kuljumieva, dean of the Faculty of Physics and Mathematics, West-Kazakh State University. Mr. Utemisova (Uralsk, Republic of Kazakhstan).

National expert - Tairov Mitalip Muratovich, Dhaf-Mn. Professor, Batken State University (Kyuzi-Kyiya, Kyrgyz Republic).

National Expert - Satybaev Abdygan Zhunosovich, Professor, Head, Department of Information Technology and Management, Osh University of Technology (Osh, Kyrgyz Republic).

National expert - Mambetakunov Esenbeck Mambetakunovich, Head of the Department of Methodology of Teaching Physics and Natural History of the Kyrgyz National University named after J. Balasagyna (Bishkek, Kyrgyz Republic).

The employer is Zhubaliyev Bakytkul Toksonbayevna, the principal of S.M. Kirova Gymnasium School, Osh (Osh, Kyrgyz Republic),

The student - Yegizbaeva Asylzat Yerkiv'izi,, a senior student of AP 6B06101 «Information systems» East Kazakhstan University nsmed after S. Amanzholov (city Kamenogorsk, Republic of Kazakhstan).

Student - Vakhobova Shokhsanam Shokirova, a senior student of AP «Physics and mathematical education: Mathematics» the Kyrgyz-Uzbek University (Osh, Kyrgyz Republic).

Student – Tolobek uulu Sultan, a senior student of AP «60200 Tourism» of Bishkek Humanitarian University named after. K. Karasaeva (Bishkek, Kyrgyz Republic).

Observer MES KR - Alynbekova Susarkul Shergazievna, Leading Specialist of the Vocational Education Department MES KR (Mr. Bishkek, Kyrgyz Republic).

The coordinator of IAAR - Niyazova Gulyash Balkenovna, the head of the project on institutional and specialized accreditation of universities.

(III) PRESENTATION OF THE EDUCATIONAL ORGANIZATION

The Osh Teachers' Institute was established in 1939 by the Order of the Sovnarkom of the Kyrgyz SSR by № 1142 of 10 August 1939.

By the Resolution of the Council of Ministers of the USSR of 12 May 1951 for 1759, the teacher's institute was transformed into the Osh Pedagogical Institute. In 1992, by presidential decree for № 202, the Osh State Pedagogical Institute was reorganized into the Osh State University. The regulations of the organization has been approved by the Government of the Kyrgyz Republic.

The University is a State organization with a legal organizational structure - the Institution. The founder is the Ministry of Education and Science of the Kyrgyz Republic.

As a legal entity, OshSU acquired the relevant rights and and obligations from the moment of its state registration in accordance with the procedure established by law. It has a Charter, a separate balance, a seal and other attributes.

OshSU is training specialists in two stages of the three-stage model of vocational education (bachelor-master-doctoral), which is based on credit-based learning system, thus improving quality, ensuring the continuity of educational levels and the academic mobility of students and teachers.

Currently, there are 2 institutes, 19 faculties, a psycho-pedagogical training centre, 4 secondary vocational training institutes, 126 departments, 7 departments, 1 management, 7 departments, 6 gymnasiums and training centers, 30 educational, cultural, aesthetic, resource and other centers. The infrastructure of OshSU is located throughout the city of Osh in the form of faculty campuses, thus creates all necessary conditions for the education of students and professional development of teachers.

The university has 1,750 full-time professors, including 70 doctors of science and professors, 405 PhD candidates, associate professors. These include the following:

Academic of the National Academy of Sciences - 1,
Corresponding member of the National Council of the Kyrgyz Republic - 2,
Laureate of State Award in science - 2,
Honored singers of the Kyrgyz Republic - 2,
Academicians of the Engineering Academy - 5,
Corresponding Member of the Engineering Academy - 6
Honored Educators of the Kyrgyz Republic - 8,
Honored Doctors of the Kyrgyz Republic - 5,
Distinguished Scientists of the Kyrgyz Republic - 3,
Honored Art Worker of the Kyrgyz Republic - 1,
- Honored Coaches of the Kyrgyz Republic - 2.

The average quality number of the faculty is 27.14 per cent which meet the requirements.

In OshSU, various experts are being trained in 118 education programs, including 34 bachelor education programs, 25 master's degrees and 32 secondary vocational schools, and internships 27 education programs. In the academic year 2020-2021, there were 35000 students studying in OshSU including undergraduate, postgraduate and master's degrees in full-time, part-time and remote (correspondence) forms of study.

Training of the academic staff on Education Programs «Physics and mathematical sciences and fundamental information technology» 510100 «Mathematics» (master's degree) is carried out by the departments of algebra and geometry, mathematical analysis.

Educational activity on 510100 «Mathematics» is realized in accordance with Annex 92 of the License of the LD140000160 series, registration number 14/0139, issued by order of ME and S of Kyrgyz Republic № 1092/1 from 14.07.2016.

Master's degree courses are offered for a period of two years on a full-time basis using remote technology. The maximum number of students is 40.

This is the first time that independent programme accreditation has been conducted.

(IV) DESCRIPTION OF THE EEC VISIT

The visit of the external expert commission to OshSU was carried out on the basis of the approved and pre-agreed Online Visit Program from 19 to 21 October 2020.

In order to coordinate the work of EEC, a remote installation meeting was held on 18th of September 2020, during which the responsibilities were distributed among the members of the commission, the schedule of the online visit was refined, and agreement was reached on the selection of expertise methods.

In order to obtain objective information on the evaluation of the university, the members of EEC used such methods as remote visual examination, observation, online interviewing of employees of different organizational units, teachers, students, graduates and employers, online surveys of academic staff, students.

In accordance with the requirements of the standards, the Program of the visit included online meetings with the head-chancellor, vice-chancellors, heads of structural units, deans, heads of university departments, teachers, trainees, employers and staff from various departments, online interviews and questionnaires for teachers and learners.

Information on staff and trainees who participated in online meetings with the IAAR EEC:

Category of participants	**Number**
Chancellor	1
Vice-chancellor	3
Heads of structural units	17
Deans of faculties	2
Heads of departments	13
Teachers	32
Bachelor and master degree students	33
Alumni	36
Employers	49
Total	**186**

During the visual on-line inspection, the members of the EEC looked at the state of the faculties' material and technical base, which implement accreditation of EP, departments, scientific laboratories, classes, library, computer classes, study rooms, etc. with the help of a video-report prepared for an external expert commission, as well as in addition to an online visit to the departments implementing EP.

The activities planned within the framework of the IAAR EEC visit helped to familiarize experts with the practice fundamentals. According to EP 510100 «Mathematics» (Masters), the following practice bases were organize to visit:

- # 83 Secondary School named after Alisher Navoi, Kara-Suy District, Osh Region;
- # 14 an innovative school-lyceum named after S. Davletova Jalal-Abad Region.

External experts requested and reviewed the working papers of the University. In addition, experts examined the University's Internet positioning through the university's official webpage.

The activities planned within the framework of the IAAR EEC online- visit helped to familiarize the experts with the university's educational infrastructure, logistical resources, teaching staff, representatives of employers' organizations and trainees. This allowed IAAR EEC members to independently assess the conformity of the data set out in the EP self-assessment reports of the University with the criteria of the IAAR program and primary accreditation standards.

(V) COMPLIANCE WITH INITIAL PROGRAMME ACCREDITATION STANDARDS

5.1. Standard "Management of Basic Educational Programme"

Evidence

The implementation of EP 510100 «Mathematics» (Masters) is carried out in accordance with the Mission of OshSU reflected in the Charter of OshSU accessible on the official website of the university.

Stakholders can be introduced to the Mission of OshSU, the objectives and EP 510100 «Mathematics» (Master's degree) on the site of OshSU (page of the department of algebra and geometry), on a large screen in the foyer of the main building of OshSU, in which the faculty of mathematics and information technology is located. Besides, information is distributed on mass media (TV station «Umut» and newspaper «Nur»), as well as on social platforms (Facebook, Instagram, Whatsapp). The teaching department of Algebra and Geometry holds meetings, distributing the OshSU mission among the Masters.

The current quality assurance policy of EP 510100 «Mathematics» (Masters) is effective, taking into account both the external national context in which the institution operates and the internal university context. The development of a quality assurance system is closely related and is based on the Education Development Strategy of the Kyrgyz Republic and is confirmed by: The Development Strategy, the Academic Policy of the University, the Regulations on the Modular Design of Educational Programmes / Methodological recommendations.

The implementation of EP 510100 «Mathematics» (Masters) addresses the needs of the State, region, employers and trainees, and agrees with the national legislation and strategy of the entire university. The content of EP 510100 «Mathematics» (Masters) is directed at the formation of general scientific, professional and additional competences necessary for work in the respective spheres.

The management of EP 510100 «Mathematics» (Magistracy) closely cooperates with the employers who take part in various events (meetings, round tables), as well as with the employers feedback is done by means of questionnaires.

The whole process of ensuring the quality of education at faculty of mathematics and information technology contributes to the formation of a certain corporate culture, which can make the faculty competitive and the most attractive for learners and teachers.

Currently, anyone interested, a master's degree, can enter via the Internet into the AVN OshSU educational information system, download the KelBil mobile application and get current information about studies, contract fees, timetables and attendance, the performance of the required master, as well as other information. The Masters have the right to request the necessary information from the department, faculty and teachers.

The performance of the programs is evaluated by semi-annual and annual reports prepared by the Faculty on the following points:

Information about the teaching staff and department with qualitative analysis,

Implementation of the curriculum and training loads of the teachers;

Academic performance of master's degree programs

Analysis of indicators for Masters

Explanation of deviations from the plan (poor performance by academic group).

The planned activities under the EP are monitored at the meetings of the Department and the Faculty Councils.

Analytical part

EEC IAAR conducted interviews and interviews with the Chancellor, Vice-chancellors, Deans, Heads of Departments, Heads of Structural Units, Trainees, Ppps, representatives of employers' organizations, and also carried out surveys of teaching staff and trainees, familiarizing the experts with logistical and information technology resources and necessary documents notes the following.

1. The management of EP 510100 «Mathematics» (Masters) involves representatives of employers, trainees and teaching staff in the management of EP. This is shown by the round tables organized with employers' representatives, the analysis of the results of online surveys of masters and teaching staff.

2. Despite the fact that the EP management has demonstrated the existence of a quality assurance policy, EEC nevertheless concluded that the quality assurance policy should be reviewed and updated to reflect the link between research, teaching and learning, and published a quality assurance policy on the official website of OshSU.

3. Dual –degree education and academic mobility is an important factor, and the management of an accredited EP needs to implement a two-diploma education and the academic mobility of students and partner institutions.

4. The management of the accredited EP should improve the management and monitoring of the internal EP quality assurance system, with particular attention to risk management mechanisms.

5. Consideration should be given to the possibility of training EP managers in education management programs.

6. The teaching staff survey conducted during the EEC visit NAAR showed that:

Reflecting the university's mission and strategy in innovative programs: very good and good - 100 per cent;

teaching staff involvement in management and strategic decision-making: very good and good - 98.2%, relatively bad - 1.8%.

Strengths/best practices

Evidence of transparency in programme management;

Involve representatives of employers, teaching staff, trainees and other interested persons in the management of EP.

EEC recommendations

Review and update the quality assurance policy, reflect the links between research, teaching and learning, and publish the quality assurance policy on the official OshSU website;

To implement dual-degree education and the academic mobility of students with partner universities;

Improve the management and monitoring of the internal EP quality assurance system, with particular attention to risk management mechanisms;

- to consider the possibilities of studying by the management of EP 510100 «Mathematics» (master's degree) programs of education management.

The conclusions of EEC according to the criteria of the standard «Management of the basic educational program»: EP 510100 «Mathematics» (Masters) have strong - 2, satisfactory - 9, suggesting improvements - 4.

5.2. Standard «Information Management and Reporting»

Evidence

In order to manage information, an AVN information system has been implemented in

OshSU, which supports the organization, management and communication of the educational process. Through the educational portal of the system, Masters, teachers **and** managers are given the opportunity to exchange various information and reports.

In OshSU, all processes are automated by AVN from admission to graduation:

An admission, payment, transfer or reinstatement;

Information on the contract, achievements and personal data of the master;

Obtaining teaching materials such as UMK, tests, syllabuses, lectures, e-books;

Teacher workload, curriculum, semester, schedule;

Information on teachers' personal data;

Electronic vouchers, records, official forms;

Information on the groups of faculties, the number of Masters students, the various results of the modules, etc.

The Master through the terminal of the bank pays the tuition, which is registered through the AVN system. If the amount of the tuition is paid according to the requirements, admission to the module or examination shall be granted. In case of non-payment the tuition, the teacher will not be able to key in the corresponding points in the electronic list avn.oshsu.kg.

The University has its own network resources:

1. The website Osh State University www.oshsu.kg is created to get information about the university and its activities.

2. Effective websites of Osh State University's structures (faculties, departments, etc.): www.iro.oshsu.kg, www.library.oshsu.kg, www.art.oshsu.kg.So, the websites of faculties, colleges and other educational structures are at the stage of completion.

3. www.ibooks.oshsu.kg.The website of the electronic library provides information about the operation hours of the library, its book collection and allows you to have access to digitized printed publications.

4. www.antiplagiat-pro.oshsu.kg is a software and hardware complex for checking text documents for the presence of borrowings(plagiarism) from open sources on the Internet and other sources.

There is a system of regular reporting within the accredited EP. One of the main forms of evaluating the activities of departments is their annual reports. The report of the department is analyzed and discussed at the meeting of the department, approved by the dean of the faculty. Based on the reports of the departments, the Dean's office makes a report on the faculty. Based on the reports of the faculties, the general report of the university is formed.

Every year, an action plan is formed to prepare for the new academic year, which reflects the main actions with deadlines, performers, responsible and structural units for submitting documents, i.e. monitoring the implementation of planned activities.

Based on the monitoring results of the implementation of EP in the previous years, as reflected in the annual reports of the Department, the management of the EP decides on development in the current year. Taking into account the recommendations of teaching staff, employers and undergraduates on the development of EP, new annual comprehensive plans of the department are drawn up.

Access to information is differentiated in the context of students, teaching staff and administrative staff of the university. Personal information (academic performance, payment, correspondence, etc.) is available only to the owner. For example, a student will not see the progress of another student, the teacher does not see the electronic statements of other teachers. At the same time, an employee who posts information on the corporate portal can restrict access independently. If desired, students, employees and teaching staff can document their consent to the processing of personal data.

A permanent system for collecting information about the internal and external environment of the university is the conducting and analyzing of questionnaires of interested parties. The system collects the information regarding the main characteristics of the contingent of teaching staff, students, their preferences and parents, the share of the university in the market of

educational services, data measuring public opinion (teaching staff, students, etc.)

The system of analyzing information provides an objective view of the state of the EP, allows for an objective assessment and adjustment for the further development of the EP.

The plan for the development of educational programs is reviewed annually, taking into account the factors that affect its formation, improvement and development, and if necessary, adjustments are made to it.

In the 2019-2020 academic year, 26 undergraduates are enrolled in the EP 510100 "Mathematics" (Master's degree) on a paid basis. Over the past three years, the contingent has demonstrated stability in numbers.

The analytical part

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

1. The university has a system for collecting, analyzing and managing information based on the use of ICT and monitoring the recruitment of students, academic performance, personnel, etc., which is presented in regular reports at the meeting of departments, faculty and Academic Council of the University.

2. The information collected and analyzed by the university within the framework of the EP takes into account the availability of educational resources and support systems for students. This is displayed by the creation of the official website of the university, the AVN information system, which serve as a link between stakeholders and function as tools for collecting and providing information in real time.

3. The members of the EEC note that the management of the EP should determine the procedure and ensure the protection of information, identify responsible individuals for the reliability and timeliness of information analysis and data provision.

4. The survey of students conducted during the visit of the EEC IAAR showed that the satisfaction of students with the:

- the usefulness of the website of the organization of education in general and faculties in particular: fully satisfied and partially satisfied-98.3%;
- informing students about courses, educational programs and academic degrees: fully satisfied and partially satisfied – 100%;
- informing the requirements in order to successfully complete this specialty: fully satisfied and partially satisfied-96.7%.

Strengths/best practices

- availability of mechanisms for measuring the degree of satisfaction with the needs of academic staff, staff and students within the framework of the EP;
- satisfaction of students with the implementation of the EP and the quality of training at the university;
- availability of educational resources and support systems for students.

EEC recommendations

- to determine the procedure and ensure the protection of information, to determine the responsible parties for the accuracy and timeliness of information analysis and data provision.

Conclusions of the EEC on the criteria of the standard "Information Management and reporting": EP 510100 "Mathematics" (Master's degree) has strong-3, satisfactory-12, suggesting improvement-1.

5.3. Standard "Development and approval of basic educational programme»

The evidence part

The legal and regulatory framework of EP is following:

- Regulation of the Government of the Kyrgyz Republic " On the establishment of a two-level structure of higher professional education in the Kyrgyz Republic»;

- Law of the Kyrgyz Republic "On Education»;

- Resolution of the Government of the Kyrgyz Republic "On approval of acts on independent accreditation in the education system of the Kyrgyz Republic".

The underlying documents for the development of EP are the Order of the MES KR state higher professional education**.** on direction 510100 “Mathematics”, and the Bulletin of Osh state University "Regulation of EP vocational education programs, undergraduate and graduate programs in Osh state University", which establishes the general requirements to the rules of development, approval, opening and closing of EP for all forms and levels of professional education.

State educational standard is the basis for the development of the EP in the direction of 510100 " Mathematics "(Master's degree). The curriculum accurately indicates the classroom hours and credits allocated for independent work of the master's student, the total number of credits and hours of study load. Within the educational program, the disciplines and their logical sequence are clearly defined, the number of credits corresponds to the disciplines defined within the framework of the EP.

The curriculum of the master's program of the direction 510100 "Mathematics" is designed for 2 years and includes 120 credits (3600 hours). The total number of disciplines planned for the entire period of training in this area is 20. The number of subjects of study in the semester (from the first to the third) is 17, and in the fourth semester 3. The academic year consists of 32 weeks of training: 1 half-year-16, 2 half-year-16. Working programs of disciplines, syllabuses and educational and methodological complexes are developed by teachers of the department on the basis of EP.

According to the curriculum, the preparation of masters in each discipline is determined by the matrix of competencies. According to State higher professional education 510100 “Mathematics” curriculum of the Master's EP in this direction is developed based on the model curriculum approved by the MES of the KR and the decision of the Academic Council of Osh State University. The guarantee of the achievement results will be ensured by the fact that for each academic year, taking into account the wishes of stakeholders and the instructions of the OshSU, changes will be made to the curriculum (03.02.2016 №6, 23.12.2016 №5, 10.02.2017 №5, 23.05.2018 №9).

Interested parties (teaching staff, graduates, employers) were involved in the development of the content and approval of the EP. In order to assess the quality of the EP, it is analyzed for suitability by receiving feedback from students, teaching staff, employers and graduates, as well as by analyzing the educational achievements of students. All interested parties took an active part in round tables and questionnaires, where the EP was discussed.

The EP is reviewed by two persons of appropriate qualification, the first of which is an internal reviewer; the second is an external reviewer. As the external expert was involved in the 2018-2019 academic year, the candidate of Physics and Mathematical Sciences, associate Professor J. A. Zulpukarov, in the 2019-2020 academic year doctor of Physics and Mathematical Sciences, Professor, head of the Department of A. J. Ashirbaev.

The goals of the accredited EP, developed by the members of the department in accordance with the mission of Osh State University, were approved at the meeting of the Department of Algebra and Geometry (03.02.2016 No. 6), and reflected in the EP and in the current programs of the disciplines. The goals and objectives of the EP in the direction of 510100 " Mathematics "(Master's degree) are published on the page of the Department of Algebra and Geometry of the Osh State University’s website and available to all stakeholders.

A graduate gains an Academic Master's degree in Mathematics after he has mastered 120 credits, passed research, production and scientific-pedagogical practices, state certification and defended a Master's research thesis.

The analytical part

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

1. The university will be documenting the procedures for the development of EP and their approval. This has been approved by the fact that the EP is considered and discussed at meetings of departments, reviewed by external experts. The final approval of the EP takes place at the Academic Council of the University.

2. Manual EP presented evidence for the involvement of students, teachers and other stakeholders in the development of EP and EP has been developed according to the established goals, including expected learning outcomes.

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

- the level of accessibility and responsiveness of the university management: fully satisfied and partially satisfied – 100%;
- availability for academic counseling: fully satisfied and partially satisfied-100%.

Strengths/best practices

- Compliance of the developed EP with the established goals, including the expected learning outcomes.

EEC recommendations

No

The conclusions of the EEC criteria: (strong/ moderate/ suggest improvement/ unsatisfactory)

OP 510100 "Mathematics" (Master's degree) has strong-1, satisfactory-11, suggesting improvement-0.

5.4. Standard "On-Going Monitoring and Periodic Review of Basic Educational Programme"

The evidence part

Planning, organization, management and monitoring of the content of EP 510100 "Mathematics" (master) is carried out under the leadership of the Department of Algebra and Geometry in conjunction with information –awareness department and the department of accreditation and quality of education of Osh State University in accordance with educational standards, model curricula, academic plans, directions and regulations of the higher education system of the Kyrgyz Republic. To ensure the quality of education, the following types of work are carried out annually at the end of each semester:

- monitoring of knowledge (academic performance) of undergraduates in all types of educational activities provided for by the educational program;
- providing feedback to stakeholders: employers and faculty graduates, as well as joint activities with the University Career Center and the Faculty Alumni Association;
- university-wide survey of undergraduates on the assessment of the quality of teaching "Teacher through the eyes of students".

The administration of the university has developed and approved an updated bulletin No. 33, which provides criteria for evaluating the knowledge of students by the teacher. All subjects EP 510100 Mathematics (master's degree) include routing, map of accumulation points and fund of assessment tools disciplines according to the requirements of Bulletin No. 19 of the Osh State University. The main elements of the fund of assessment tools are methods, mechanisms, tools and criteria for evaluating students ' knowledge. Teachers who implement the program, develop fund of assessment ***tools*** for the various disciplines taking into account the results of the program's training.

To ensure the transparency of the procedure for assessing the knowledge of undergraduates, the final control in all disciplines is carried out in classrooms with video surveillance.

At meetings with employers and graduates, a questionnaire survey is conducted, where several questions are related to the degree of their satisfaction, expectations and needs. All comments of employers and undegraduates are recorded in analytical reports based on the results of the survey.

The analytical part

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

1. The university conducts monitoring and periodic evaluation of EP 510100 "Mathematics" (Master's degree) in order to meet the needs of students and society. This is evidenced by the fact that the EP is regularly updated.

2. The university operates the official website of Osh State University and the AVN information system. However, the members of the EEC note that it is necessary to define a mechanism for informing all interested parties about any planned or taken actions in relation to the EP and regularly publish changes made to the EP on the OshSU official website.

3. A survey is conducted during the visit of the EEC IAAR showed that students assess the overall quality of educational programs as fully satisfied and partially satisfied – 98.3%.

Strengths/best practices

- defined mechanisms for monitoring and periodic evaluation of the EP in order to ensure the achievement of the goal and meet the needs of students and society;
- monitoring and periodic evaluation of the EP provides for the workload and academic performance of students.

EEC recommendations

- define a mechanism for informing all stakeholders of any planned or undertaken actions in relation to the EP;
- to publish regularly on the website of Osh State University the changes that you made in the EP.

Conclusions of the EEC on the criteria of the standard "Development and approval of basic educational programs": EP 510100 "Mathematics" (Master's degree) has strong-2, satisfactory-5, suggesting improvement-2.

5.5. Standard "Student-Centered Learning, Teaching and Performance Evaluation"

The evidence part

When forming the educational path the postgraduates are given the opportunity to participate in the selection of elective courses, by filling in the questionnaires with proposals for entering a specific course from the list of suggested courses. Proposals of the postgraduates are taken into account when implementing the EP.

Within the framework of the accredited EP, all graduates are taught in the Kyrgyz language, and some subjects can be taught in Russian upon request.

Active and innovative teaching methods are introduced into the educational process: interactive method, group learning method, problem (perspective) method, heuristic method, axiomatic method, case technologies, etc. These methods are used in their classes by the international coach on critical thinking, Doctor of Ph. D., Professor. G. Matieva, corresponding Member of the National Academy of Sciences of the Kyrgyz Republic, honored Scientist of the Kyrgyz Republic, Doctor of Ph. D., Professor K. Alymkulov, Ph. D., Associate Professor of the department T. Papieva , Ph. D. candidates Ch. Abdullayeva, Zh. Artykova, senior lecturer N. Selivanova.

Since 60% of the educational material is allocated to undergraduates for independent work, teachers, use online learning tools, give tasks and accept them through the use of Internet platforms Kahoot, Videouroki.net, Moodle, AVN educational portal, Google services, Cloud technologies, WhatsApp.

The following research projects funded by the Ministry of Education and Science of the Kyrgyz Republic were implemented at the Faculty of mathematics and information technology in 2017-2019:

- "Didactic foundations for the development of spatial thinking of future teachers with the help of new and computer-based learning technologies" under the guidance of Doctor of Ph. D., Professor G. Matieva;

- "Problems of phase transitions and critical phenomena. Mathematical aspects of their equations, fast transitions and asymptotics " under the supervision of Ph.D Professor K. Alymkulov,.

Educational and methodological manuals on the practical application of geometric concepts that contribute to the development of spatial thinking of undergraduates have been developed using the results of scientific research

Assessment of knowledge, skills and professional competencies of undergraduates studying on the credit technology of training is carried out on a 100-point scale with the conversion of the final result into an alphabetic and digital equivalent. The assessment takes into account attendance, the level of activity in the classroom, the systematic implementation and level of independence of all types of classes, the ability to correctly formulate a problem, find answers. Postraduates will learn about their grades either from a teacher or through the AVN educational portal.

The registration office reflects in the transcript the history of educational achievements of students during the entire period of study. Assessment of students ' knowledge, skills and abilities is carried out through current control, semi-final and final certification. Detailed information on the current and final exams,, types of tasks, deadlines, and the distribution of rating scores included in the syllabus in the discipline and introduced to students on the first week of the semester.

For the organization of examination sessions, teaching staff develop examination tasks, which are considered at the meeting of the department. New tests are developed annually, which are then tested by the Department of accreditation and quality of education, and later approved at faculty meetings. Based on the results of the examination sessions, a transfer score (GPA) is calculated for the course, which is recorded in the student's transcript. After the announcement of the results of the intermediate certification, a master's student who does not agree with the test results has the right to file an appeal within a day. The final certification includes passing a comprehensive exam and defending a master's thesis.

The analytical part

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

1. Osh State University has developed methods for monitoring students ' knowledge, a mechanism for the submission and consideration of appeals.

2. The members of the EEC noted that there is an impetus for the introduction of modern technologies and techniques, but this work is not systematic. In this regard, teaching staff is recommended to conduct their own research in the field of teaching methods of special disciplines within the framework of an accredited EP.

3. A survey of students conducted during the visit of the EEC IAAR showed that students evaluate the

validity of exams and certification as fully satisfied and partially satisfied-100%;

- conducted tests and exams as fully satisfied and partially satisfied-100%.

Strengths/best practices

- respect and attention to different groups of students and their needs.

EEC recommendations

- conduct their own research in the field of teaching methods of special disciplines within the framework of an accredited EP.

Conclusions of the EEC on the criteria of the standard "Student-centered learning, teaching and assessment of academic performance": OP 510100 "Mathematics" (Master's degree) has strong-1, satisfactory-9, suggesting improvement-0.

5.6. Standard "Students»

The evidence part

Information about the rules and conditions of admission to the master's program, the list of necessary documents is posted in advance on the official website of the university and on information stands. In addition, information about admission can also be obtained from consultants working in the admissions committee and from those who are responsible for professional orientation work during planned events, the release of booklets, information sheets, brochures.

At the Faculty of mathematics and information technology in the master's direction 510100 “Mathematics”, the recruitment of postgraduates is conducted by the conversation. The standard training period is 2 years.

Students learn about the application procedures (admission rules, transfer from course to course, etc.) through the program manager.

The result of the student’s current progress is their current certification. During the semester, two mandatory mid-semester tests of are conducted for all students: for the first test – week 8, for the second-week 16. Current control can be carried out in the form of test surveys, written control works, assessment of students ' participation in disputes, solving situational problems, etc.

Each student can log into the AVN information system and the KelBil application at any time via the Internet to keep track on their scores in the process of passing the module ratings, about the payment of the tuition, schedule and attendance, as well as other information.

Based on the approved curriculum the faculty of mathematics and information technology schedules the examinations that is approved by the Dean of academic Affairs, Director of Information and awareness department**.** The date of the exams will be brought to the attention of teachers and students no later than two weeks prior to the examination session.

To integrate the postgraduates from the first day of their stay at the faculty, meetings are held with the dean of the faculty, during which they receive a reference guide for each academic year, which is available both on paper and in electronic form on the official website. In the direction of training 510100 “Mathematics”, postgraduates from abroad are not trained.

To conduct academic mobility programs and be recognized the qualifications of teaching staff, the Faculty of mathematics and information technology, Osh State University cooperates with more than 20 universities.

Postgraduates and teachers of the Faculty of mathematics and information technology are given the opportunity to participate in international programs and projects offered by the international department of Osh State University: Mevlana, Erasmus-Mundus, Soros-Kyrgyzstan, IREX, UGRAD, DAAD, ITEC, etc.

Unfortunately, at the moment there is no academic mobility among postgraduates of EP 510100 ‘Mathematics” (Master's degree).

In the curriculum of the master's EP 510100 ‘Mathematics”, according to the State Higher Education Institution of the Kyrgyz Republic, the following types of practices are provided:

- research (1 year, 1 semester, 7 weeks);
- production (1st year, 2nd semester, 7 weeks);
- scientific and pedagogical (2nd year, 3rd semester, 7 weeks).

A work program and a diary have been developed for all types of practices. Postgraduates’ internship is approved by the university and they receive the needed advice timely.

The main place for internship for postgraduates of the accredited EP is the Department of Algebra and Geometry of the Faculty of mathematics and information technology**.** Based on the

contracts drawn up, in the 2019-2020 academic year, the practical training of postgraduates was carried out at the place of their main work.

The criteria for obtaining a state diploma are:

- master's degree-a graduate who has gained at least 120 credits during the course of study, taking into account the passage of practical training and the completion of a master's thesis;
- received a total GPA for the duration of training not less than 2.25;
- successfully passed the final state certification provided for in the curriculum.

Outside of academic activities, undergraduates participate in various conferences, round tables and seminars. So, on November 27, 2019, all undergraduates took part in the scientific and practical conference "Scientific research of young scientists: hypotheses, practical proposals, developments", where a report was made by a master's student of the MK(m)-1-19 group Nishanbayeva Nazgul.

The analytical part

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

1. The university demonstrated the policy of forming students in the context of EP. This is evidenced by the fact that the current model of forming students at the university corresponds to the legislation of the Kyrgyz Republic. To increase the number of applications for admission from applicants, the university conducts active professional orientation work with university graduates.

2. The management of the EP has demonstrated its readiness to conduct special adaptation and support programs for newly enrolled and foreign students (although currently foreign undergraduates do not study at this EP). Postgraduates of the 1st year are given a reference guide, which contains all the necessary information.

3. EEC members note that there is no academic mobility among undergraduates of the accredited EP. In this regard, it is necessary to intensify the work on informing, attracting and creating conditions for undergraduates to participate in external and internal academic mobility in the context of EP.

Strengths/best practices

- the existence of a policy for the formation of students in the context of EP from admission to graduation and ensuring the transparency of its procedures;
- analysis of available material and technical, information resources, human resources.

EEC recommendation

- to intensify the work on informing, attracting and creating conditions for postgraduates to participate in external and internal academic mobility in the context of EP.

Conclusions of EEC according to the criteria of the standard "Students": EP 510100" Mathematics " (Master's degree) has strong – 2, satisfactory – 13, suggesting improvement – 0.

5.7. Standard "Teaching staff"

The evidence part

The Osh State University staff policy is developed in accordance with the Osh State University Development Strategy for 2018-2023, and reflected in the Charter, the Osh State University Mission, the internal labor regulations, the employee's employment contract (the contract is stored in the staff department in the employee's personal file and at the department), the regulations on remuneration. Regulations on structural divisions and job descriptions of university teaching staff were developed and approved.

The selection of the staff at the university is carried out on the basis of an analysis of the needs of educational programs, according to the results of which a competition is announced for filling vacant positions. Since the 2018-2019 academic year, Osh State University has developed a regulation on the procedure for compiling the internal staff reserve of Osh State University.

According to the regulations, the competition consists of 2 stages: Stage I - a test in the major, stage II-a test in pedagogy and psychology.
Transparency of staff procedures is ensured by holding a competitive commission, conducting an annual certification of teaching staff with hearing their reports on all positions of the individual plan and announcing a reasoned conclusion of the department with a recommendation to participate in competitive elections and (or) to extend the employment contract. An employment contract with employees of Osh State University is concluded for a period of no more than five years. At the conclusion of an employment contract, by agreement of the parties, the contract may provide a probation period in order to verify the compliance with the work assigned to him (up to three months).
Training in EP 510100 " Mathematics "(Master's degree) is carried out by: teachers with academic degrees and titles, leading specialists, i.e. senior teachers with extensive work experience.
The quantitative and qualitative composition of teachers serving the accredited EP in basic and profile disciplines: full – time-12, with an academic degree-11 (5 doctors of sciences, 6 candidates of sciences), the degree – 92%. The teaching staff of EP 510100 " Mathematics "(Master's degree) meets the qualification requirements and the indicators of the staff policy.
The main document defining the work of the teacher is an individual plan. It includes a plan for the current year training (in hours), educational and methodological, research and other types of work, including advanced training. During the academic year, changes can be made to the individual plan based on the decision of the department.
On the basis of the Collective Agreement, Osh State University and the Labor Committee of the Faculty are responsible for their employees and for creating favorable working conditions for them. Osh state University has created favorable conditions for work for the teaching staff, which is reflected in the respective work places in the departments and classrooms in compliance with sanitary standards and requirements, providing training and workflow necessary technical equipment of new generation, as well as participation in the solution of a number of social issues of faculty – the provision of concessional vouchers to sanatoriums and rest homes, providing material assistance in difficult life situations, etc.
The Information and Library Center provides teachers with the right to free use of the book collection and electronic resources, provides electronic delivery of ordered sources; provides free access to international subscription databases.
In 2019, according to the annual IAAR rating of the teaching staff of universities (Kazakhstan), teaching staff of EP 510100 "Mathematics" (master) is placed in the following table.

№	Name (Academic staff)	Academic degree	Credits	IAAR placement
1	Gulbadan Matieva	Associate Professor, Ph.D. of Physics-mathematical Sciences.	1600	7
2	Keldibai Alymkulov	Associate Professor, Ph.D. of Physics-mathematical Sciences.	1400	9
3	Dilmurat Tursunov	Associate Professor, Ph.D. of Physics-mathematical Sciences.	950	15
4	Erkaim Sharipova	Associate Professor, Ph.D. of Physics-mathematical	300	28

		Sciences.		
5	Tolkun Papieva	Ph.D. of Physics-mathematical Sciences.	200	30
6	Zhyldyz Artikova	Ph.D. of Physics-mathematical Sciences.	200	30

The faculty has two scientific schools, they are led by professors K. Alymkulov and G. Matieva.

In the university, along with collegial bodies, meetings with the chancellors , vice-chancellors, deans of faculties, teaching staff, the schedule of reception of the chancellors and vice-chancellors, on official and personal issues, there are another means of communication like the chancellor's e-mail, the university website, information stands, class hours, various surveys, the newspaper "Nur", the TV and radio studio "Umut", open days, hinged boxes for letters with the inscription "For the chancellor", "Trust boxes" of the student Ombudsman's office. All this together comprises a system of information and feedback.

The analytical part

The analysis of the accredited EP 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 EP is staffed in accordance with the legislation of the Kyrgyz Republic.

2. The management of the university is responsible for its employees and for creating favorable working conditions for them. This is evidenced by the provision of the educational and working process with the necessary technical equipment of the new generation, as well as the provision of teaching staff on preferential terms of vouchers to sanatoriums and rest homes, providing material assistance in difficult life situations, etc.

3. The EEC notes that it is necessary to strengthen the work on the development of academic mobility of teaching staff within the framework of the EP and attract the best domestic and foreign teachers.

4. The EEC notes that the management of the EP should provide an opportunity and create conditions for attracting practitioners from relevant industries to teach.

5. The results of the survey of accredited EP promote innovation teaching staff have rated very good and good – 100%.

Strengths/best practices

- objective and transparent staff policy, including in the context of EP, including hiring, professional growth and development of staff, ensuring the professional competence of the entire staff;

- compliance of the staff potential of the teaching staff with the development strategy of the university and the specifics of the EP;

- awareness of responsibility for their employees and providing them with favorable working conditions.

EEC recommendations

- strengthen the work on the development of academic mobility of teaching staff within the framework of the EP and attract the best domestic and foreign teachers;

- to provide an opportunity and create conditions for attracting practitioners of relevant industries to teaching.

Conclusions of the EEC according to the criteria of the standard "Teaching staff": EP 510100 " Mathematics "(Master's degree) has strong-3, satisfactory-5, suggesting improvement-0.

5.8. Standard "Educational resources and Student Support Systems»

The evidence part

Osh State University has a sufficient material and technical base for conducting lectures, practical and laboratory classes and research work of students, provided for in the curriculum of the university and corresponding to the current sanitary-epidemiological and fire-fighting norms and rules.

There are :

- libraries of the faculty, university;
- electronic reading room;
- computer center;
- test center;
- DATA center;
- media center;
- distance learning center.

The Faculty of mathematics and information technology has 19 computer classes, 185 computers, 7 electronic boards and 13 projectors. All computers are connected to high-speed Internet and the internal AVN and FTP system of Osh State University, Wi-Fi access points are installed in the academic building of the faculty, and in the lobby of the first floor there is a photocopying equipment available to students, undergraduates and teachers of the faculty. Students have access to computers and the Internet during extracurricular hours.

The library of the faculty includes 1500 copies of subject educational literature, newspapers and magazines. Postgraduates, using individual (AVN) login passwords, can use the electronic library (ibooks. oshsu.kg), which is more than 10,000 books.

The results of research, namely articles, master's theses are checked for plagiarism of the UID with the issuance of a certificate of originality of the work. The original text must be at least 70%.

Internet resources are available for students:

- Bilimkeni.kg;
- Okuma.kg;
- Videouroki.net;
- Kahoot.it.

At the end of each academic year, the analysis of the available EP resources (classrooms, laboratories, computers, necessary equipment, and training materials) is conducted and according to the analysis, the plan has been made for additional purchase of teaching materials and equipment, alongside with the recruitment of postgraduates for the first year.

In addition, students have the necessary living conditions, cultural environment and conditions for sports, namely, students have access to the following socio-cultural and sports facilities of the university:

- summer sports ground;
- gyms;
- Osh State University Dispensary;
- Umut boarding house;
- Ak Buura Recreation Center;
- Clinic at Osh State University.

The analytical part

As a result of visual online inspection of the objects of the material base by the members of the EEC and acquaintance with the material base during the interview with the chancellor and heads of departments, the following was noted:

1. The management of the accredited EP has demonstrated the adequacy of material and technical resources and infrastructure. This is evidenced by the fact that the buildings and structures of the university comply with the current sanitary standards and fire safety requirements, the classroom and laboratory facilities, classrooms and other premises, sports facilities comply with the established norms and rules. However, the members of the EEC note that the management of the EP should strive to take into account the needs of different groups of students in the context of the EP. In this regard, it is necessary to create conditions for students with disabilities.

2. Experts note that postgraduates have access to educational Internet resources that correspond to the specifics of the EP.

3. The survey of students conducted during the visit of the EEC IAAR showed that the satisfaction of students with the:

- the availability of library resources is 100%;
- the existing educational resources of the university 100%;

the existing research laboratories of 98.3%.

Strengths/best practices

- a sufficient number of training resources and student support services that meet the objectives of the EP;
- access to educational Internet resources.

The recommendations of the EEC

- create conditions for students with disabilities.

Conclusions of the EEC on the criteria of the standard "Educational resources and student support systems": OP 510100 "Mathematics" (Master's degree) has strong-2, satisfactory-6, suggesting improvement-0.

5.9. Standard "Public Information"

The evidence part

Information about the EP, the regulations on admission to the master's program, and employment opportunities for Osh State University graduates is provided through the official website of the university, which contains the following tabs:

- university;
- education;
- science;
- international relations;
- incoming;
- students;
- teachers;
- graduates;
- the faculties.

The general public and interested parties are informed about the activities of the EP through: the Osh State University website, social networks, round tables held with external stakeholders, briefings with management, TV and radio broadcasting on a ticker. At the same time, Osh State University has a TV studio "Umut", as well as editorial offices of newspapers for teachers "Didactics", which publish important materials on the categories of publications.

The audited financial statements, including in the context of EP, are published on the Osh State University website in the following order: University / Management / The Vice-chancellor of International Relations and Development / Financial report.

The results of the external evaluation of the university are published on the official website of Osh State University. Osh State University by participating in the ranking system got the first place in Kyrgyzstan.

On the page of the Department of Algebra and Geometry of the Osh State University website, you can find interesting information about the master's OP 510100 "Mathematics" (Master's degree).

The analytical part

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

1. Information about the activities of Osh State University and the implementation of the accredited EP is published on the university's website, in the intra-university newspaper "Didactics", TV and radio broadcasting on a running line and in social networks. At the same time, the information on the site is not presented systematically, does not fully reflect the results of the university's activities, and some sections contain outdated and incomplete information. In this regard, the management of the EP should regularly update the information on the official website of Osh State University within the framework of the EP.

2. Experts note that the Osh State University's website and other sources of information do not contain information about cooperation and interaction with partners within the framework of the EP. The management of the accredited EP should consider various ways to inform the public about cooperation and interaction with partners within the framework of the EP.

3. Experts note the availability of adequate and objective information about the teaching staff of the EP in the context of personalities.

4. An important factor is the participation of Osh State University and implemented EP in external evaluation procedures. The proof is that the university takes part in the ranking of universities of Kyrgyzstan, conducted by the IAAR.

Strengths/best practices none

The recommendations of the EEC

- regularly update information on the official website of Osh State University within the framework of the EP;
- to consider various ways of informing the public about cooperation and interaction with partners within the framework of the EP.

Conclusions of the EEC on the criteria of the standard "Informing the public": EP 510100 "Mathematics" (Master's degree) has strong-0, satisfactory-9, suggesting improvement-1.

5.10. Standards in the context of individual specialties

NATURAL SCIENCES, AGRICULTURAL SCIENCE, ENGINEERING AND TECHNOLOGY

The evidence part

According to requirements of STATE HPE of Kyrgyz Republic content of the EP 510100 disciplines "Mathematics" (master) is based on the knowledge and skills obtained at the previous stage of education, and aimed at obtaining knowledge in the field of fundamental natural Sciences, and the professional skills and competencies.

The content of all disciplines of EP 510100 "Mathematics" (Master's degree) is based on the current state of development of science and include a clear relationship with the content of mathematics.

To ensure the preparation of students for the use of information and communication technologies, the discipline "Computer technologies in applied mathematics and education" was introduced into the variable part of the general scientific cycle of the EP.

Production and scientific-pedagogical practices are provided to ensure the acquisition of practical experience in the accredited EP.

The teaching staff implementing the accredited EP includes full-time teachers:

- 5 doctors of science;

- 6 candidates of science;

- 1 senior teacher with extensive experience and experience in the field of teaching special disciplines.

The analytical part

Based on the results of the analysis, the members of the EEC came to the following conclusions.

1. Teaching in an accredited EP is based on the achievements of science and practice in the field of specialization.

2. Information about the types of practices and related aspects is presented and confirmed by facts, the main skills and abilities acquired as a result of training are indicated.

Strengths/best practices none

The recommendations of the EEC

none

The conclusions of the EEC criteria: (strong/ moderate/ suggest improvement/ unsatisfactory) EP 510100 "Mathematics" (Master's degree) has strong – 0, satisfactory-5, suggesting improvement-0.

(VI) REVIEW OF STRENGTHS/BEST PRACTICES FOR EACH STANDARD

Standard "Management of Basic Educational Programme"

- there is an evidence of transparency of the management system program;
- involve representatives of employers, teaching staff, students and other interested parties in the management of the EP.

Standard "Information management and reporting"

- availability of mechanisms for measuring the degree of satisfaction of the needs of teaching staff, staff and students within the framework of the EP;
- satisfaction of students with the implementation of the EP and the quality of training at the university;
- availability of educational resources and support systems for students.

Standard "Development and Approval of the Basic Educational Programme"

- compliance of the developed EP with the established goals, including the expected learning outcomes.

Standard "On-Going Monitoring and Periodic Review of Basic Educational Programme"

- defined mechanisms for monitoring and periodic evaluation of the EP in order to ensure the achievement of the goal and meet the needs of students and society;
- monitoring and periodic evaluation of the EP provides for the workload and academic performance of students.

Standard "Student-Centered Learning, Teaching and Performance Evaluation"

- respect and attention to different groups of students and their needs.

Standard "Students"

- the presence of a policy for the formation of students in the context of the EP from admission to graduation and ensuring transparency of its procedures;
- analysis of available material and technical, information resources, human resources.

Standard "Teaching staff»

- objective and transparent staff policy, including in the context of EP, including hiring, professional growth and development of personnel, ensuring the professional competence of the entire staff;

- compliance of the potential of the teaching staff with the development strategy of the university and the specifics of the EP;

- awareness of responsibility for their employees and providing them with favorable working conditions.

Standard "Educational resources and student support systems"

- a sufficient number of educational resources and student support services that meet the goals of the EP;

- access to educational Internet resources.

Standard "Informing the public"

none

Standards in the context of individual specialties

NATURAL SCIENCES, AGRICULTURAL SCIENCES, TECHNICAL SCIENCES AND TECHNOLOGIES

none

(VII) REVIEW OF QUALITY IMPROVEMENT RECOMMENDATIONS

Standard " Management of Basic Educational Programme"

- to review and update the quality assurance policy, to reflect in it the relationship between scientific research, teaching and learning, and to publish the quality assurance policy on the official website of Osh State University;

- implement dual -degree education and academic mobility of teaching staff and students with partner universities;

- improve the management and monitoring of the internal quality assurance system of the EP, paying special attention to risk management mechanisms;

- to consider the possibility of training by the management of EP 510100 " Mathematics "(Master's degree) of educational management programs.

The standard "Information Management and reporting"

- to define the procedure and ensure the protection of information, to identify responsible individuals for the reliability and timeliness of information analysis and data provision.

Standard "Development and Approval of the Basic Educational Programme"

none

Standard "On-Going Monitoring and Periodic Review of Basic Educational Programme"

- define a mechanism for informing all stakeholders of any planned or undertaken actions in relation to the EP;

- to publish regularly on the website of Osh State University the changes that you made in the EP.

Standard "Student-Centered Learning, Teaching and Performance Evaluation"

- conduct their own research in the field of teaching methods of special disciplines within the framework of an accredited EP.

Standard "Students»

- to intensify the work on informing, attracting and creating conditions for undergraduates to participate in external and internal academic mobility in the context of EP.

Standard "Teaching staff»

- strengthen the work on the development of academic mobility of teaching staff within the framework of the EP and attract the best domestic and foreign teachers;

- to provide an opportunity and create conditions for attracting practitioners of relevant industries to teaching.

The standard "Educational resources and student Support systems"

- to create conditions for students with disabilities.

Standard "Informing the Public"

- regularly update information on the official website of Osh State University within the framework of the EP;

- to consider various ways of informing the public about cooperation and interaction with partners within the framework of the EP.

Standards in the Context of Individual Specialties

NATURAL SCIENCES, AGRICULTURAL SCIENCES, TECHNICAL SCIENCES AND TECHNOLOGIES

none

Appendix 1. Evaluation table " PROGRAM PROFILE PARAMETERS (EX-ANTE)»

Conclusion of the external expert commission on the evaluation of the educational program 510100 " Mathematics "(Master's degree) Osh State University

p	№ p	Evaluation criteria	Position of the educational organization			
			Strong	Moderate	Involves improvement	Poor
Standard "Management of Basic Educational Programme'						
1	1.	The university must have a published quality assurance policy. Quality assurance policies should reflect the relationship between research, teaching and learning			+	
2	2.	The university must demonstrate the development of a culture of quality assurance, including in the context of EP		+		
3	3.	Commitment to quality assurance should apply to any activity performed by contractors and partners (outsourcing), including the implementation of joint / dual- degree education and academic mobility			+	
4	4.	Manual EP demonstrates a willingness to ensure the transparency of the development plan of EP based on the analysis of its functioning, the actual positioning of the educational organization and the orientation of its activities to meet the needs of the state, employers, students and other stakeholders. The plan should contain a time frame for the start of the implementation of the EP		+		
5	5.	The EP management demonstrates the existence of mechanisms for forming and regularly reviewing the EP development plan and monitoring its implementation, evaluating the achievement of training goals, meeting the needs of students, employers and society, and making decisions aimed at continuous improvement of the EP		+		
6	6.	The management of the EP should involve representatives of groups of interested persons, including employers, students and teaching staff in the formation of the development plan of the EP		+		
7	7.	The EP management should demonstrate the individuality and uniqueness of the EP development plan, its consistency with national priorities and the strategy for the development of education in the Kyrgyz Republic		+		
8	8.	The university must demonstrate a clear definition of those responsible for business processes within the framework of the EP, an unambiguous distribution of job responsibilities of personnel, and the differentiation of functions of collegial bodies		+		

9	9.	The management of the EP must provide evidence of the transparency of the program management system	+			
10	10.	The management of the EP must demonstrate the existence of an internal quality assurance system for the EP, including its design, management and monitoring, their improvement, and fact-based decision-making		+		
11	11.	The management of the EP should carry out risk management, including within the framework of the EP undergoing primary program accreditation (ex-ante), as well as demonstrate a system of measures aimed at reducing the degree of risk			+	
12	12.	Manual EP should ensure the participation of representatives of employers, faculty, students and other stakeholders in the composition of the collegial management bodies of the EP, as well as their representation at decision-making on management education program	+			
13	13.	The university must demonstrate innovation management within the framework of the EP, including the analysis and implementation of innovative proposals		+		
14	14.	The management of the EP should demonstrate evidence of readiness for openness and accessibility for students, teaching staff, employers and other interested parties		+		
15	15.	The management of the EP should be trained in educational management programs			+	
		Total by standard	**2**	**9**	**4**	**0**
Standard " Information Management and Reporting»						
16	1.	The university must demonstrate the existence of a system for collecting, analyzing and managing information based on the use of modern information and communication technologies and software tools and that it uses a variety of methods for collecting and analyzing information in the context of the EP		+		
17	2.	The management of the EP should demonstrate the existence of a mechanism for the systematic use of processed, adequate information to improve the internal quality assurance system		+		
18	3.	EP management should demonstrate fact-based decision-making		+		
19	4.	The management of the EP should provide for a system of regular reporting that reflects all levels of the structure, including an assessment of the effectiveness and efficiency of the activities of departments and departments, scientific research		+		
20	5.	The university should establish the frequency, forms and methods of evaluating the management of the EP, the activities of collegial bodies and structural divisions, senior management, and the implementation of scientific projects		+		

21	6.	The university must demonstrate the definition of the procedure and ensuring the protection of information, including the identification of responsible persons for the reliability and timeliness of information analysis and data provision			+	
22	7.	An important factor is the availability of mechanisms for involving students, employees and teaching staff in the processes of collecting and analyzing information, as well as making decisions based on them		+		
23	8.	The management of the EP should demonstrate the existence of a mechanism for communication with students, employees and other stakeholders, as well as mechanisms for conflict resolution		+		
24	9.	The university should demonstrate the existence of mechanisms for measuring the degree of satisfaction of the needs of teaching staff, staff and students within the framework of the EP	+			
25	10.	The university should provide for an assessment of the effectiveness and efficiency of its activities, including in the context of EP		+		
26		Information intended for collection and analysis within the framework of the EP should take into account:				
	11.	Key indicators of performance		+		
	12.	the dynamics of students in the context of forms and types (if there are students)		+		
	13.	the level of academic performance, achievements of students and deductions		+		
	14.	satisfaction of students with the implementation of the EP and the quality of education at the university	+			
	15.	availability of educational resources and support systems for students	+			
27	16.	The university must confirm the implementation of the procedures for processing personal data of students, employees and teaching staff on the basis of their documentary consent.		+		
Total by standard			**3**	**12**	**1**	**0**
Standard "Development and Approval of the Basic Educational Programme"						
28	1.	The university should define and document the procedures for the development of the EP and its approval at the institutional level		+		
29	2.	The management of the EP should ensure that the developed program meets the established goals, including the expected learning outcomes	+			
30	3.	The management of the EP should ensure that there is a developed model of the EP graduate describing the learning outcomes and personal qualities		+		
31	4.	The management of the EP must demonstrate the conduct of an external examination of the content of the EP and the planned results of its implementation		+		

32	5.	The qualification awarded upon completion of the EP must be clearly defined and correspond to a certain level of the NSC		+		
33	6.	The management of the EP should determine the impact of disciplines and professional practices on the formation of learning outcomes		+		
34	7.	An important factor is the possibility of training students for professional certification		+		
35	8.	The management of the EP must provide evidence of the participation of students, teaching staff and other stakeholders in the development of the EP, ensuring their quality		+		
36	9.	The complexity of the EP should be clearly defined in Kyrgyz loans and ECTS		+		
37	10.	The management of the EP should ensure that the content of academic disciplines and planned results correspond to the level of training		+		
38	11.	The structure of the EP should provide for various types of activities that ensure that students achieve the planned learning outcomes		+		
39	12.	An important factor is the correspondence of the content of the EP and the results of training, the content and results of programs implemented by organizations of higher and (or) postgraduate education in the **EPVO**		+		
		Total by standard	**1**	**11**	**0**	**0**
Standard ''On-Going Monitoring and Periodic Review of Basic Educational Programme''						
40	1.	The university should define mechanisms for monitoring and regular evaluation of the EP in order to ensure the achievement of the goal and meet the needs of students and society. The results of these processes should be aimed at continuous improvement of the EP	+			
41	*Monitoring and regular evaluation of the EP should include::*					
	2.	the content of education on specific discipline to ensure the relevance of teaching		+		
	3.	Modifying the needs of society and professional environment		+		
	4.	load, student's performance	+			
	5.	efficient procedures for students' assessment		+		
	6.	expectations, needs and satisfaction of students learning by DEFINITION		+		
	7.	educational environment and support services and their compliance with the goals of ADVANCED training		+		
42	8.	The university, the management of the EP should define a mechanism for informing all interested parties about any planned or taken actions in relation to the EP			+	
43	9.	All changes made to the EP must be published.			+	
		Total by standard	**2**	**5**	**2**	**0**
Standard "Student-centered learning, teaching and performance assessment''						

44	1.	The management of the EP should ensure respect and attention to different groups of students and their needs, provide them with flexible learning paths	+			
45	2.	The management of the EP should provide for the use of various forms and methods of teaching and learning		+		
46	3.	An important factor is the availability of own research in the field of teaching methods of academic disciplines.		+		
47	4.	The management of the EP should demonstrate the existence of feedback mechanisms for the use of various teaching methods and evaluation of learning outcomes		+		
48	5.	The management of the EP should demonstrate the existence of mechanisms to support the autonomy of students with simultaneous guidance and assistance from the teacher		+		
49	6.	The management of the EP should demonstrate that there is a procedure for responding to complaints from students		+		
50	7.	The university must ensure consistency, transparency and objectivity of the learning outcomes assessment mechanism for each EP, including appeal		+		
51	8.	The university must ensure that the procedures for evaluating the learning outcomes of students of the EP are consistent with the planned results and goals of the program. Criteria and methods of evaluation within the framework of the EP should be published in advance		+		
52	9.	The university should determine the mechanisms for ensuring that each graduate of the EP achieves learning outcomes and ensure the completeness of their formation		+		
53	10.	Evaluators should be familiar with modern methods of evaluating learning outcomes and regularly improve their skills in this area		+		
		Total by standard	**1**	**9**	**0**	**0**
Standard "Students"						
54	1.	The university must demonstrate the existence of a policy for the formation of students in the context of EP from admission to graduation and ensure transparency of its procedures. Procedures governing the life cycle of students (from admission to completion) should be defined, approved, and published	+			
55	*The management of the EP should determine the order of formation of students based on:*					
	2.	The university must demonstrate that its actions comply with the Lisbon Recognition Convention.		+		
	3.	minimum requirements for applicants of		+		
	4.	the maximum group size when conducting seminars, practical, laboratory and studio classes		+		
	5.	forecasting the number of state grants		+		
	6.	analysis of available material and technical, information resources, human	+			
	7.	resources, analysis of potential social conditions for students, including the provision of places in the hostel		+		

56	8.	The management of the EP should demonstrate its readiness to conduct special adaptation and support programs for newly enrolled and foreign students		+		
57	9.	The university must demonstrate that its actions comply with the Lisbon Convention on the Recognition of Qualifications Related to Higher Education in the European Region		+		
58	10.	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 Recognition Information Centers " ENIC/NARIC to ensure comparable recognition of qualifications		+		
59	11.	The management of the EP should demonstrate the existence of a mechanism for recognizing the results of academic mobility of students, as well as the results of additional, formal and non-formal training		+		
60	12.	The university should provide an opportunity for external and internal mobility of students of EP, as well as readiness to assist them in obtaining external grants for training		+		
61	13.	The management of the EP should demonstrate its readiness to provide students with places of practice, promote employment of graduates, and maintain communication with them		+		
62	14.	The University needs to be able to provide graduates with EP documents confirming obtained qualifications, including achieved learning outcomes and the context, content and status of the education received and the evidence of its completion		+		
63	15.	An important factor is the availability of mechanisms for monitoring the employment and professional activities of graduates of the EP		+		
Total by standard			**2**	**13**	**0**	**0**
Standard "Teaching staff"						
64	1.	The university should have an objective and transparent personnel policy, including in the context of EP, including hiring, professional growth and development of personnel, ensuring the professional competence of the entire staff	+			
65	2.	The university must demonstrate that the individual potential of the teaching staff corresponds to the development strategy of the university and the specifics of the EP	+			
66	3.	The management of the EP must demonstrate an awareness of responsibility for its employees and provide them with a favorable working environment	+			
67	4.	The management of the EP should demonstrate the change in the role of the teacher in connection with the transition to student-centered learning		+		

68	5.	The university should determine the contribution of the teaching staff of the EP to the implementation of the university's development strategy, and other strategic documents		+		
69	6.	The management of the EP should demonstrate a willingness to involve practitioners of the relevant industries in teaching		+		
70	7.	The institution must demonstrate motivation for professional and personal development of teachers EP, including promoting the integration of scientific activities and education, application of innovative teaching methods (e.g., on-line learning, e-portfolio, Moos etc.)		+		
71	8.	An important factor is the readiness of the university to develop academic mobility within the framework of the EP, to attract the best domestic and foreign teachers		+		
		Total by standard	**3**	**5**	**0**	**0**
Standard "Educational resources and student Support system"						
72	1.	The university must guarantee a sufficient number of educational resources and student support services that meet the objectives of the EP.	+			
73	2.	The university must demonstrate the adequacy of material and technical resources and infrastructure, taking into account the needs of various groups of students in the context of EP (adults, working, foreign students, as well as students with disabilities)		+		
74	*EP management should demonstrate that there are procedures in place to support different groups of students, including information and counseling. The management of the EP must demonstrate that the information resources correspond to the specifics of the program, including:*					
	3.	technological support of students and teaching staff in accordance with EP (e.g., on-line training, simulation, databases, program data analysis)		+		
	4.	library resources, including Fund educational, methodical and scientific literature in General education, basic and profiling majors in print and electronic media, periodicals, access to scientific databases		+		
	5.	examination of research results, final papers and dissertations for plagiarism		+		
	6.	access to educational Internet resources	+			
	7.	the functioning of WI-FI in the University		+		
75	8.	The university should strive to ensure that the educational equipment and software intended for use in the development of educational programs are similar to those used in the relevant industries		+		
		Total by standard	**2**	**6**	**0**	
Standard "Public Information"						
	The university must publish reliable, objective, up-to-date information about the education program and its specifics, which should include:					

76	1.	expected learning outcomes of the implemented EP		+		
	2.	qualifications and (or) qualifications assigned upon completion of the OPERATION teaching		+		
	3.	and learning approaches, as well as the system (procedures, methods and forms) of assessment		+		
	4.	information about passing points and educational opportunities provided to students		+		
	5.	information about employment opportunities for graduates		+		
77	6.	The management of the EP should provide for a variety of ways to disseminate information, including the media, information networks to inform the general public and interested persons		+		
78	7.	Public awareness should include support and clarification of the country's national development and education programs		+		
79	8.	The university must demonstrate the reflection on the web resource of information that characterizes it as a whole and in the context of EP		+		
80	9.	An important factor is the availability of adequate and objective information about the ***faculty*** of the EP		+		
81	10.	An important factor is to inform the public about cooperation and interaction with partners within the framework of the EP			+	
		Total by standard	**0**	**9**	**1**	**0**
Standards in the context of specialties						
NATURAL SCIENCES, AGRICULTURAL SCIENCE, ENGINEERING AND TECHNOLOGY						
82		*The EP of the directions "Natural sciences", "Technical sciences and technologies" must meet the following requirements:*				
	1.	EP should include disciplines and activities aimed at obtaining practical experience and skills in General and majors in particular disciplines, including:		+		
	2.	- excursions to the enterprises for specialization (plants, shops, research institutions, laboratories, educational-experimental farms, etc.)		+		
	3.	- conduct individual sessions or entire disciplines in the enterprise specialization		+		
	4.	- conducting seminars to solve practical problems relevant to enterprises in the field of specialization, etc.		+		
	5.	The teaching staff involved in the program should include, as full-time teachers, practitioners who have long-term experience as a full-time employee at enterprises in the field of specialization of EP		+		
		Total by standard	**0**	**5**	**0**	**0**
		TOTAL	**16**	**84**	**8**	**0**