

To the Accreditation Council of  
the Eurasian Center for Accreditation  
and Quality Assurance  
in Education and Healthcare  
April 27, 2024

**REPORT  
OF THE EXTERNAL EXPERT COMMISSION  
ON THE RESULTS OF EVALUATION OF THE BACHELOR'S  
EDUCATIONAL PROGRAM 6B10104 "PHARMACY"  
OF NJSC "ASTANA MEDICAL UNIVERSITY" FOR COMPLIANCE WITH  
THE ACCREDITATION STANDARDS OF THE EDUCATIONAL  
PROGRAM OF BASIC MEDICAL EDUCATION (BACHELORATE)  
ECAQA**

**external expert evaluation period: March 27-29, 2024**

**Astana, 2024**

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## LIST OF SYMBOLS AND ABBREVIATIONS

Abbreviation	Designation
ECAQA	Eurasian Centre for Accreditation and Quality Assurance in Education and Healthcare
WFME	World Federation of Medical Education
MSHE RK	Ministry of Science and Higher Education of the Republic of Kazakhstan
SCES	State compulsory educational standard of higher and postgraduate education
EEC	External expert commission
SPCPU	St. Petersburg Chemical and Pharmaceutical University
BSMU	Bashkir State Medical University
TPU	Tashkent Pharmaceutical University
EMCD	Educational and methodological complex of the discipline
UC	University component
BD	Basic disciplines
MD	Major disciplines
NCSSTE	National Centre for State Scientific and Technical Expertise
CED	Catalog of elective disciplines
PBL	Problem-based learning
RBL	Research-Based Learning
KazOMY	Kazakhstan Organization of Medical Youth
ETTC	Educational Technology Transfer Center
EPP	Educational and professional practice
Internship	Internship
RBL	(Russian Battle League)

### 1. Composition of the External Expert Commission

In accordance with ECAQA Order No. 7 of 03/05/2024, an External Expert Commission (hereinafter referred to as the EEC) was formed to conduct an external evaluation during the period March 27-29, 2024 as part of the accreditation of the educational program “6B10104 “Pharmacy”” in the following composition:

No .	Status as part of the EEC	Full name	Academic degree/title, position, place of work/place of study, course, specialty
1	Chairman	Kuzgibekova Almagul Bolatovna	Candidate of Medical Sciences, Professor of the Department of Childhood Diseases of the NJSC “Karaganda Medical University”.
2	International expert	Kulikov Oleg Vilievich	Candidate of Medical Sciences, Senior lecturer, expert auditor of the voluntary certification system of the Federal State Budgetary Institution “National Institute of Quality” of Federal Service for Surveillance in Healthcare. Member of the Scientific and Technical Council of the All-Russian Quality Organization and “RIA Standards and Quality” LLC. Member of the Expert Council of the journal “Quality Management in Medicine”.
3	Academic expert	Boshkaeva Asyl Kenesovna	Doctor of Pharmaceutical Sciences, acting Professor of the Department of Pharmaceutical and Toxicological Chemistry, Pharmacognosy and Botany of the NJSC “Kazakh National Medical University named after S.D. Asfendiyarov”
4	Academic expert	Yermukhanova Lyudmila Sergeevna	Candidate of Medical Sciences, Associate Professor, Head of the Department of “Public Health and Healthcare” of the NJSC “West Kazakhstan Medical University named after Marat Ospanov”
5	Academic expert	Metova Zaituna Abdulkamymovna	Candidate of Medical Sciences, Associate Professor, Head of the Department of Public Health of NJSC “Semey Medical University”
6	Academic expert	Brimzhanova Marzhan Dikhanovna	Doctor PhD, Advisor to the Rector of the Kazakhstan Medical University “HSPH” LLP. Doctor of the highest category in the specialty "Dermatovenereology"
9	Expert employer	Zhanturiev Bolat Meirbekovich	Candidate of Medical Sciences, DBA, Head of the Biological Testing Laboratory of the Testing Centre with Laboratories, Almaty Territorial Branch of the National Centre for Expertise of Medicines, Medical Devices and Medical Equipment of the Ministry of Health of the Republic of Kazakhstan
10	Expert representative of master's students	Astrakhanov Magzhan Rustemuly	1st year master's student in the specialty "Biology" of the Eurasian University named after L.N. Gumilyov
11	Expert student representative	Aitpay Aruay Kanatkyzy	2nd year student in the specialty "Paediatrics" of the NJSC "Medical University of

			Karaganda"
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The work of the EEC was carried out in accordance with the Regulations on the EEC.

The EEC report includes a description of the results and conclusion of an external evaluation of the educational program 6B10104 “Pharmacy” for compliance with the Accreditation Standards of the educational program of basic medical education (bachelor's degree) of medical educational organizations and conclusions (hereinafter referred to as the Accreditation Standards), recommendations of the EEC on further improvement of approaches and conditions for the implementation of the above educational program and recommendations for the ECAQA Accreditation Council for Accreditation.

## 2. General part of the final report

### 2.1 Presentation of the educational program 6B10104 “Pharmacy”

#### NJSC "Astana Medical University"

Name of organization, legal form of ownership, BIN	Non-profit joint-stock company "Astana Medical University" (hereinafter referred to as AMU), BIN 080940008218
Government	Ministry of Health of the Republic of Kazakhstan
Full name of the first manager	Nadyrov Kamalzhan Talgatovich
date of creation	October 26, 1964
Location and contact details	Republic of Kazakhstan, Astana city, Beibitshilik street 49/a
State license for educational activities in undergraduate education (date, number)	No. KZ93LAA00014823 dated 03/19/2019
Information about educational buildings	Astana city, Abay street 47 Astana city, Saryarka street 33 Astana city, Ualikhanov street 11
Year of commencement of the accredited educational program (EP)	2002
Duration of training	5 years
Total number of graduates since the beginning of the EP implementation	547 (full-time) 206 people (correspondence) Total 753
Number of students on OP since the beginning of this year	262
Employment	Employment rate, % over 5 years: 2017 -100 2018 – 94.4 2019 - 100 2020 – no data 2021 - 100
Full-time teachers/ Part-time workers involved in the implementation of the EP, incl. % sedate	There are 90 teachers in total, including 84 full-time and 6 part-time teachers. The indicator of sedateness is 41%.
Website	<a href="https://amu.edu.kz/">https://amu.edu.kz/</a>
Instagram	<a href="https://www.instagram.com/amu_mua_official/">https://www.instagram.com/amu_mua_official/</a>
Facebook with active pages	<a href="https://www.facebook.com/MeduniverAstana">https://www.facebook.com/MeduniverAstana</a>

### 2.2 Information about previous accreditation

AMU has a Certificate of Specialized Accreditation. Organizational and legal form is Non-profit joint stock company. Level of study is bachelor's degree. Educational program is 6B101 – Pharmacy. Certificate validity period: April 22, 2019 - April 19, 2024

### **2.3 Brief description of the report on self-assessment of the educational program “6B10104 “Pharmacy” and conclusions about completion**

The report on self-assessment of the educational program 6B10104 “Pharmacy” (hereinafter referred to as the report) is presented on 51 pages of main text, 2 pages of annexes, electronic versions of documents located at the link.

The report is characterized by completeness of answers to all 9 main accreditation standards and criteria, structured taking into account the recommendations of the Guidelines for self-assessment of the educational program, which were provided to the educational organization by the accreditation centre - ECAQA, as well as internal consistency of information. The report is accompanied by a covering letter signed by the rector Nadyrov Kamalzhan Talgatovich, who confirms the accuracy of the quantitative information and information included in the self-assessment report.

The report contains a list of 16 members of the internal self-assessment commission indicating the responsibilities of each employee, information about the representative of the organization responsible for conducting self-assessment of the educational program - Berkimbaeva Zhamal Khairdenkyzy, head of the Centre for Accreditation and Rating.

Self-assessment of the educational program 6B10104 “Pharmacy” was carried out on the basis of the rector’s order No. 794-n/k dated December 28, 2023.

All sections of the report present the actual practice of NJSC “Astana Medical University” in training bachelors in the specialty 6B10104 “Pharmacy”, taking into account the start of admission of students in 2023, reasoned data, examples of the implementation of the objectives of the educational program, national and international events, methodological support, confirming compliance with the requirements of accreditation standards. The description in the self-assessment report is quite complete and updated in terms of the number of students, teachers, administration, information on selection and admission, learning outcomes, results of evaluation of knowledge and skills, material and technical base of the university and clinical sites, contractual obligations with partners (universities, associations, database), financial information, plans for development and improvement, etc.

The report is presented to ECAQA in complete form, with data adjusted according to the above recommendations, written in competent language, the wording for each standard is clear and understandable and described in accordance with the criteria of the standards, tables and figures (diagrams, photographs) contain links in the text and are continuously numbered.

The quality of the self-assessment report served as the basis for moving to the next stage of the accreditation procedure - external evaluation. The experts plan to validate the report data, compare the information from the report with the information that will be received during the visit to the educational organization, i.e. verification of quantitative and qualitative indicators.

### **3. Description of external expert evaluation**

External expert work as part of the evaluation of the AMU educational program was organized in accordance with the Guidelines for Conducting External Evaluation of Educational Organizations and Educational Programs of the ECAQA. Dates of visit to the organization: March 27-29, 2024

The sequence of the visit within 3 days is presented in detail in the Visit Program (hereinafter referred to as the program), which is located in the documentation of the accreditation centre. The program is evidence of the implementation of all planned activities within the framework of external expert evaluation.

External evaluation is aimed at validating the data of the self-assessment report and verifying indicators indicating the degree of compliance with the criteria of accreditation standards.

The sequence of the visit within 3 days is presented in detail in the Visit Program (hereinafter referred to as the program), which is located in the documentation of the accreditation centre and in

Annex 3 to this report. The program is evidence of the implementation of all planned activities within the framework of external expert evaluation.

To obtain objective information, members of the EEC used the following methods and their results:

- interviews with management and administrative employees – 10;
- interviews with students – 923 people in total, including foreign ones (none);
- study of the university website (<https://drive.google.com/drive/folders/1NY3EiJa0YI1kQWW-wRhZLbKcQo0dAZUo>);
- interviews with (7) employees, (4) teachers;
- survey of teachers and students - 539 and 923, respectively;
- observation of student’s learning process: attending 1 (one) practical lesson (discipline “Fundamentals of the study of medicinal plant materials”), Sarzhan Sakenovich Kapasov - senior lecturer of the department of pharmaceutical disciplines, 12, 304 group, Saryarka, 33;
- review of resources in the context of the implementation of accreditation standards: 3 classrooms of practice/clinical training bases were visited, including the Department of Pharmaceutical Disciplines and the Department of General and Biological Chemistry (list by writing the full name of the organization without abbreviation), where training is conducted in 1 (one) educational program with the participation of 28 full-time teachers / 6 part-time teachers;
- study of educational and methodological documents in the amount of 15 units both before the visit to the organization and during the visit to the departments (the list of documents studied is in Annex 2).

The team of the accredited organization ensured the presence of all persons indicated in the visit program and according to the lists of interview sites (Table 1).

**Table 1 - Information on the number and category of participants in meetings, interviews, talks with members of the EEC**

<b>№</b>	<b>Full name</b>	<b>Job title</b>
1	Shukirbekova Alma Boranbekovna	Head of the Department of Pharmaceutical Disciplines
2	Omari Aziza Mukataykyzy	Dean of the School of Pharmacy
3	Iztileu Nurzhan Sarsenbayuly	Lecturer at the Department of Pharmaceutical Disciplines, Head Teacher
4	Sapieva Ardak Onalbekovna	Head of the Department of General and Biological Chemistry
5	Zeinuldina Aizhan Saipidenovna	Associate Professor of the Department of General and Biological Chemistry, Head Teacher
6	Igenbaeva Bakhyt Balkenovna	Associate Professor of the Department of General and Biological Chemistry, Head Teacher
7	Kapasov Sarzhan Sakenovich	Senior Lecturer at the Department of Pharmaceutical Disciplines

On the last day of the visit to the organization, a meeting of EEC members was held based on the results of the external evaluation. A final discussion on the results of the external evaluation of the educational program, study of documents, results of interviews, talks, and questionnaires was conducted. Members of the EEC began drafting the final report of the EEC. Generalizations of the results of the external evaluation are made. The experts individually completed the “Quality Profile and criteria for external evaluation of the educational program 6B10104 “Pharmacy” for compliance

with the ECAQA Accreditation Standards.” No comments were made by the EEC members. Recommendations for improvement of the educational program were discussed by the chairman held a final open vote on the recommendations for the ECAQA Accreditation Council for the accreditation period of 5 years.

Comfortable conditions were created for the work of the EEC, and access to all necessary information and material resources was organized. The Commission notes the high level of corporate culture of the University, the high degree of openness of the team in providing information to members of the EEC.

*While conducting a survey of students (7.7% of the total number of students), the work of the External Expert Commission on Accreditation was assessed as positive - 74.21%, 25.78% as satisfactory. 59.7% expressed a positive opinion about the work of the External Expert Commission on the accreditation of an educational program in pharmacy, 16.58% expressed a satisfactory opinion, almost every 4th (23.73%) expressed unsatisfactory and doubtful answers. According to 29.2% of the total number of teachers, the survey: regarding questions about the importance of accreditation of educational programs as an effective mechanism for ensuring the quality of higher and postgraduate education - 65.86% answered affirmatively (although almost everyone personally took part in the preparation of the self-assessment report 10th of respondents (9.46%) Every 5th (22.82%) believe that this mechanism should be combined with other mechanisms (certification, audits, independent assessment of students' knowledge, etc.) responded negatively or not. understand what accreditation is every 5th (19.48%) took part in the work of accreditation commissions - 2.04%.*

At the end of the visit, the chairman of the EEC announced recommendations for the management and employees of the educational organization based on the results of the external evaluation as part of specialized accreditation.

#### **4. Analysis of compliance with accreditation standards based on the results of an external evaluation of the educational program 6B10104 “Pharmacy”**

##### **Standard 1: MISSION AND OUTCOMES**

###### **1.1 Mission statement**

While implementing the activities of the visit program, namely, based on the results of an interview with the first head of the organization, members of the consultative and advisory body (write the exact name of the council), in interviews with students and teachers, compliance with the criteria of *standard 1* was established. All participants in the educational process know the mission of the educational program, took part in the formation of proposals for formulating the mission, while the mission was brought to the attention of potential students through the website, social networks, and information letters to medical organizations. The mission is formulated in accordance with the strategic goals of the university, which is to train competitive specialists who are able to provide qualified medical and social services using the acquired knowledge and skills, who are ready to continue learning throughout their lives in the conditions of dynamically developing modern medicine and carry out their professional activities on the basis the use of modern innovative technologies in combination with solving socially important problems of practical healthcare.

The strategic plan of the organization of NJSC "Astana Medical University" for the period from 2022 to 2026 \_5\_years, including such areas as:

1. “Training of competitive and professionally competent healthcare specialists in popular specialties and specializations”
2. “Transformation into a research university and its development as a leading center for the translation of new knowledge and innovations into health care practice and policy”
3. “Development of the university as an integrated academic medical center operating on the basis of the trinity of education, science and practice”
4. “Development of human resources and improvement of the university management and financing system”



5. “Development of infrastructure and material and technical base of the university.”

This confirms that the accreditation standard has been met and demonstrates the goals, objectives and prospects of the organization. From interviews with students, it was established that before the start of classes, teachers inform about the mission, work plans of the educational organization, tell where to get the necessary information about the educational program, teachers, and training bases.

During a visit to the departments of the departments: the department of pharmaceutical disciplines and the department of general and biological chemistry of the School of Pharmacy, experts noted the strengths of the educational organization in relation to the accredited educational program, including the following departments:

#### ***Department of Pharmaceutical Disciplines***

1 The Academic staff of the department consists of professors with high academic and scientific achievements, teachers with practical experience in the pharmaceutical industry.

2. The educational laboratories of the department are equipped with modern instruments used both in the educational process and in the research activities of undergraduates and doctoral students.

3. Research activities: several research projects are being implemented at the department. In order to involve students, scientific circles have been organized at the department. The department provides students and young scientists with opportunities to participate in conferences, seminars and publish their research.

4. Educational work: Students of the School of Pharmacy actively participate in international and republican Olympiads in pharmacy. Groups have their own facilitators to support students in their academic growth and development. Students participate in organizing various events.

5. Cooperation with international universities: the department has partnerships with foreign universities (Aegean University, Turkey; SPSCPU, RF; BSMU, Ufa; TPU, Tashkent) in order to implement joint scientific and educational initiatives.

6. Cooperation with practical pharmacy: the department has partnerships for the purpose of implementing educational and industrial practices and dual training on the basis of pharmaceutical enterprises and pharmacy organizations (Centre for Forensic Expertise of the Ministry of Justice of the Republic of Kazakhstan, the chain of pharmacies "Alfamed", "ZerdePharm" and "Biosphere", KPhC "Medservice Plus", etc.)

#### ***Department of General and Biological Chemistry***

1. Highly qualified staff: the department employs experienced and competent teachers and researchers with in-depth knowledge in the field of chemistry.

2. Modern equipment: the presence of modern laboratory equipment allows students to gain practical skills and conduct research at a high level.

3. Research activity: the department is actively engaged in scientific research in the field of chemistry and actively involves the student community of pharmacists in research activities, jointly implementing start up projects and scientific projects. The Academic staff of the department has a high publication activity.

4. Practical orientation: the focus on the practical application of knowledge allows students to successfully apply the acquired skills in real life and scientific activities.

5. Cooperation with other Institutes and organizations: the department may have partnerships with other scientific and educational institutions, which facilitates the exchange of experience and the implementation of joint projects.

6. Novelty of educational methods: the department uses a variety of teaching methods, introducing quizzes using the Kahoot program to improve understanding of the subject. In addition, the department actively uses a QR questionnaire for feedback and analysis of the lesson.

The AMU has departments that are directly related to the educational program 6B10104 “Pharmacy”, which can be noted as the best practice in education, namely, the department of pharmaceutical disciplines. This conclusion was made based on the results of the activities of the School of Pharmacy, since the Academic staff of the Department of Pharmaceutical Disciplines,

presented as the main structural unit of the School, is the main developer of the Professional Standard for Pharmaceutical Activities.

While studying the documentation, namely when developing the Mission of the program “6B10104 “Pharmacy””, the Professional Standards for Pharmaceutical Activities were taken into account, as well as the Development Strategy of NJSC “AMU” for 2022-2026. The goal of the educational program “Ensuring the quality of training of qualified personnel for the pharmaceutical industry” was determined taking into account the needs of employers. The educational process is structured in accordance with the State Compulsory Educational Standards and Laws and Statutory Instruments (LSI) in higher and postgraduate education and healthcare. At the same time, during meetings with the heads of departments of the School of Pharmacy, experts identified a number of problems, including the lack of industrial bases in Astana, which forces them to resort to on-site internships in other cities and countries, as well as the lack of their own training and production centre and scientific accredited laboratories for obtaining and standardizing original drug developments.

While developing the Vision, the University is identified as a world-class Research University, included in the TOP 700 in QS WUR and/or in the TOP 150 QS EECA, continuously developing on the principles of the trinity of science, education and practice, which unites the efforts of professionals, inspired by a single mission and defined values:

- Student-centeredness
- Competence and professionalism
- Innovation and creativity
- Civil and social responsibility
- Academic integrity and academic achievement
- Transparency and openness
- Leadership and initiative

At the same time, experts determined: both the Mission and the Strategic Vision and Values of NJSC “Astana Medical University” do not establish guidelines in the field of quality management and continuous development of the university.

## **1.2 Participation in formulating the mission of the educational program**

Monitoring and analysis of satisfaction and perception of the main consumers of the university’s activities (students, employers, teaching staff) is carried out in accordance with the internal document [SU-AMU-04-21 “Feedback monitoring”](#). Meetings of the rector with students are organized, where issues of the quality of the content of the educational program, the quality of teaching, the quality of organization of the educational process, the quality of teaching technologies, the quality of forms of control of student knowledge, learning conditions, logistical, methodological, information support of the educational process, living conditions, are directly discussed. food conditions, etc. Meetings of vice-rectors and deans are organized throughout the year, and the requirements of students are studied daily by the Schools. Blogs of the rector, deans, a helpline, and a helpbox are open.

## **1.3 Institutional autonomy and academic freedom**

Today, on the basis of the Decree of the Government of the Republic of Kazakhstan “On the issues of creating a non-profit joint-stock company “Astana Medical University” No. 648 dated October 16, 2018, the University has been reorganized. Since 2009, the University has had valuable experience in realizing the opportunities of the new status, because since 2009, it was one of the first among the country's medical universities to be transformed into a Joint-Stock University. The rights of ownership and use of the state block of shares of the University in the amount of 100% of the authorized capital are exercised by the Ministry of Health of the Republic of Kazakhstan.

According to the university standard “Development of an educational program”, the university independently develops an educational program (EP) in the appropriate direction, level and profile of training, which is developed taking into account the needs of the regional labour market, traditions and achievements of the university’s scientific and pedagogical school, in accordance with the National Qualifications Framework <https://adilet.zan.kz/rus/docs/V2000021856>, professional standards <https://adilet.zan.kz/rus/docs/G24RR000046> and in accordance with the Dublin descriptors. In

accordance with the requirements of the State Compulsory Educational Standard, the EP reflects the learning outcomes on the basis of which curricula are developed (working curricula, individual curricula for students) and syllabuses for disciplines/modules. The EP is discussed by the quality assurance committees of the University specialty and approved by the Academic Council and the Academic Council of the University.

Evaluation of students' educational achievements is carried out by various forms of control, which are determined by the university independently in accordance with the Academic Policy of the university. The form of current, midterm and end-of-course assessment is established by the department depending on the specifics of the discipline, which is subsequently approved by the Academic Council.

Academic freedom implies independence in the development and implementation of EP, within the framework of standard curricula, as interpreted by official documents (State Compulsory Educational Standards, Order of the Minister of Health of the Republic of Kazakhstan dated July 4, 2022 No KR MOH-63.). Freedom in drawing up EP is achieved by describing syllabuses, CED, IEP, WC, the form, structure and procedure for development of which is determined by the organization independently.

The possibilities of providing academic freedom to teaching staff were commented on during the survey. When conducting a survey of 923 students (on the resource <https://webanketa.com/>), out of 39 questions, a number of questions were devoted to the quality of the educational process and educational program. With the statement about the possibility of recommending to study at AMU to your acquaintances, friends, relatives, 58.1% completely agree with this statement, 29.8% partially agree with this statement, 12.1% will not recommend and have doubts.

When asked whether program directors and teachers are aware of students' problems related to learning, they completely agree with this statement - 55.8%, partially agree with this statement - 33.3%, every 1st student disagrees or doubts (10.9%). To the question "Do you think this educational organization allows you to acquire the necessary knowledge and skills in your chosen specialty?", they believe that this educational organization allows you to acquire the necessary knowledge and skills in your chosen specialty: completely 67% of students; not sure, doubtful, cannot answer this question – 33%.

539 employees were surveyed (29.2% of the total number of teaching staff). The survey included 23 questions. Among those participating in the survey, the majority of teachers had teaching experience of over 10 years (58.4%), from 5 to 10 years - 17.7%, and almost every 4th (24.49%) had less than 5 years of experience. The overwhelming majority of teaching staff were representatives of medical departments - 91.65%, theoretical disciplines were in the minority - 8.4%. Most of the Academic staffs were full-time employees of the AMU - 91.1%, part-time employees - 4.6% and other categories - 4.3%. As for satisfaction with the organization of the educational process, more than 2/3 of respondents (74.8%) expressed their complete satisfaction (agree), every 5th (19.9%) partially agreed, 4.6 completely and partially disagreed %. In matters of compliance with ethics and subordination in relations between colleagues, teachers, and management, they completely agreed that these standards were observed, noted 83.9% of Academic staff; 13.91% partially agreed and 2% completely or partially disagreed. The majority of Academic staff were completely (70.1%) and partially satisfied (24.3%) with the organization of work and the workplace; There was an extreme minority of those who disagreed and were undecided - 4.8%. The opportunity to realize oneself as a "professional in one's specialty" was fully agreed by 74%, every 5th (20%) partially agreed, 6% disagreed or were undecided.

Thus, the compliance of the mission and vision of the educational program "6B10104 "Pharmacy"" with the mission and vision of NJSC "Astana Medical University" reflects the University's desire for high standards and global goals in general.

**EEC conclusions based on the criteria.** Complies with 8 standards: fully – 8.

**Recommendations for improvement:** none

## **Standard 2: EDUCATIONAL PROGRAMME**

### **2.1 Final learning outcomes of the educational program**

The final results of training in the educational program “6B10104 “Pharmacy” correspond to the mission of the University, which is focused on training qualified specialists in the field of healthcare and pharmacy. General competencies such as effective communications, leadership, ethics, and professional development strategy reflect the important aspects highlighted in the mission. Professional competencies related to pharmaceutical activities and management directly respond to the challenges of the mission and vision of the University in the next 5 years.

Modification of educational programs, as evidenced by the implementation of a double-diploma educational program with TPU, is carried out systematically and includes several key stages. The University maintains active feedback with other Universities through various mechanisms, including definitions of purpose, mission, learning outcomes, changes in curricula, introduction of new courses or updating the content of existing programs.

*The survey of teachers provided an indicative analysis of the degree of students' satisfaction with the level of mastery of the educational program. With the fact that students have free access to patients at clinical sites, and all conditions are created to improve their practical skills, 60.30% of respondents completely agreed, every 4th (24.68%) partially agreed with this statement; those who disagreed and doubted were 15.03%.*

The teachers noted that, in descending order, the importance of the following teaching tools has now fallen: the syllabus and the educational and methodological complex of the discipline, control and measurement tools (tests, situational tasks), cases, a training journal, a logbook for recording work, etc.

### **2.2 Organization and structure of the educational program**

The activities of the AMU School of Pharmacy include planning, provision, supervision, study and evaluation, as well as improving and ensuring the quality and integrity of the program, awarding credits and academic degrees. [The educational program 6B10104 “Pharmacy”](#), approved for 5 years, was developed in accordance with the State Compulsory Education Standard, recognized by Order of the Minister of Health of the Republic of Kazakhstan No. KR MOH 63 “On approval of state compulsory standards for levels of education in the field of healthcare.” Compliance with state standards and standard requirements has been established. The educational program includes several key elements: graduate competencies and final learning outcomes, curriculum and assessment of students' educational achievements, educational program resources, research and scientific achievements, academic staff, final certification of graduates, continuous improvement, revision, modification, storage, reviews of the EP from employers, the procedure for approving the EP, the procedure for entering the EP into the register of educational programs of the Ministry of Education and Science of the Republic of Kazakhstan, developers of the educational program, monitoring, development plan for the EP, review and approval sheet. The structure of the educational program is built in accordance with the University Standard “Educational programs: Development and updating” (approved by the decision of the Board of NJSC “AMU” No. 14 dated 06/08/2022, changes and additions were made by decision of the Board No. 25 dated 08/31/2023).

The main principles and approaches that promote integrated learning both vertically and horizontally, used in the development of the educational program are the Modular construction of the educational program.

To this end, the curriculum and program provides for the integration of basic biomedical, behavioural, social and clinical disciplines. To integrate related sciences and disciplines, students study modules along with the compulsory component disciplines. The use of modular training contributes to the understanding and formation of the worldview, civic and moral positions of the future specialist, competitive based on an orientation towards a healthy lifestyle, self-improvement and professional success.

The educational program is integrated, which implies the unity of the educational process and clinical practice through the acquisition of modern theoretical knowledge and real practical skills.

The operational connection between the educational program and subsequent stages of professional training (master's, doctoral) is ensured by the integrity of the educational program, the sequence of basic and specialized disciplines, horizontal and vertical integration, and the use of innovative methods. The EP is regularly revised to reflect local, national, regional and global conditions based on feedback from the health sector, faculty, students and other stakeholders. In addition, the catalogue of elective disciplines is updated annually, which is previously discussed with employers. Industrial practice of students contributes to the adaptation of students to future practice. To ensure the internship of students, Memorandums were signed with pharmaceutical companies (pharmacies) “Medservice Plus” LLP, “Asmar Pharm” LLP, “Terra Pharm” LLP, “Europharma” LLP, etc.

The disciplines that are mastered at the bachelor's level, along with the fact that they form a sufficient level of competence for independent work after completion of training, are also prerequisites for master's and doctoral studies. The content of EP master's and PhD doctoral studies ensures continuity and continuity of the learning process.

Cooperation in partnership with the Ministry of Health of the Republic of Kazakhstan, health care institutions in cities and regions, public and private medical organizations, non-governmental organizations and civil society plays a key role in modernizing the educational program. This allows you to actively adapt the program to the needs of the labour market, thereby increasing the efficiency of the educational process and the success of graduates' employment.

The educational program is regularly reviewed to take into account local, national, regional and global conditions, based on feedback from health officials, teachers, students and other interested parties. Every year, after discussion with employers, the catalogue of elective disciplines is updated.

In order to receive feedback, the centre for practice, career and employment annually surveys employers, organizes job fairs and conducts visits by employer representatives in order to attract young specialists. The results of the survey make it possible to make changes to the training program and take into account the opinion of employers on the quality of student training.

By attending a practical lesson in the discipline “Fundamentals of the study of medicinal plant raw materials” of group 304 (group composition: 12 people, auditorium at Saryarka, 33, hours - 4 hours), the experts received convincing evidence that the training is carried out according to the lesson plan, microscopic studies of plant materials, that is, students have the opportunity to improve their skills in pharmacognostic analysis methods. The organization ensures compliance with ethical aspects when implementing the educational program. The experts studied the “Code of Ethics for Students of NJSC “Astana Medical University”” (approved on December 26, 2029) and during interviews with students they received answers that they were informed about the contents of this document.

An analysis of educational activities showed that the scientific basis and all the achievements of science in the advising disciplines were taken into account, additions were made to the bibliography of EMCD and syllabuses, and teachers use them in the classroom.

Only residents of clinical departments have a mentoring system. Along with the principles of quality and academic integrity, which are described in the documents “Code of Ethics” and “Academic Integrity Policy”, the organization uses an anti-plagiarism system (Strike Plagiarism).

To implement the educational program in the specialty “Pharmacy”, the organization's documents contain an EMCD, which defines the goal, takes into account the integration of practical and theoretical components, and independent work. Compliance with the State Compulsory Educational Standard and the standard requirements of the curriculum of academic disciplines has been established.

### **2.3 Contents of the educational program**

The main criterion for the completion of the Educational Program “Pharmacy” is that students complete at least 60 credits per year. The content of the EP “Pharmacy” of higher education includes the study of a cycle of general education, basic, major disciplines, as well as professional practice (educational, industrial) in the relevant areas of training. The cycles of basic and major disciplines include a university component and an elective component. The university component is a list of

compulsory academic disciplines determined by the University Independently for mastering the educational program. Elective components are introduced into the curricula of educational programs to supplement, expand and deepen training along the chosen path of study offered by the university, independently selected by students in any academic period, taking into account their prerequisites and post requisites. As indicated in the curriculum (C), the volume of the MD cycle is no more than 23% of the total volume of the undergraduate educational program or 56 academic credits. Of these, 51 academic credits are allocated to disciplines of the compulsory component. The UC disciplines of the MD cycle consist of at least 5 academic credits and are aimed at developing general competencies and skills in students. The BD cycle includes the study of academic disciplines and professional practice and makes up at least 47% of the total educational program, includes basic disciplines - prerequisites for major subjects, for the full development of the competencies of a pharmacist. The PD cycle includes academic disciplines and types of professional practices, the volume of which, according to the State Compulsory Educational Standard, is at least 25% of the total volume of the undergraduate educational program. The cycle includes the main profile disciplines of healthcare, such as the basics of internal medicine, the basics of surgical diseases, the basics of neurology, the basics of paediatrics, etc., as well as the disciplines of the specialty "Pharmacy": pharmaceutical chemistry, industrial technology of drugs, pharmacognosy, management and economics of pharmacy and etc.

There are documents containing requirements for the structure and content of educational programs, including in the document "Regulations "On the catalogue of Elective Disciplines PL-AMU-16-13", as well as in the Catalogue of Elective Disciplines (CED).

While checking the CED, experts revealed that the catalogue contents were not full-text: for example. There are no learning outcomes for each subject.

The content of work programs and the catalogue of elective disciplines reflect the needs of the healthcare system, including the content of practical and laboratory classes, in the process of teaching at the patient's bedside, in the process of training in a teaching pharmacy with the participation of a patient, in the process of teaching clinical skills in a simulation centre (SC), in the process of training in primary health care settings, as well as in teaching some subjects using WEB technologies. The Pharmacy curriculum includes disciplines/modules that help master clinical knowledge and skills, such as "Introduction to the Clinic", "First Aid", "and Pharmacotherapy".

*While questioning AMU teachers, experts revealed that students have free access to patients at clinical sites, as well as all the conditions for improving their practical skills. 60.30% of respondents completely agreed, every 4th (24.68%) partially agreed with this statement, 15.03% disagreed and doubted.*

The specifics of research work and the scientific achievements of teachers are reflected in the submission of 5 initiative research projects registered with the National Centre for State Scientific and Technical Expertise (NCSSTE). The School of Pharmacy uses medical research as the basis for its educational program and strives to integrate current scientific advances and practical research into the student learning experience. Research activities are carried out by the university Academic staff, PhD-doctoral students, master's students, taking into account the priority areas of pharmaceutical science.

For the successful implementation of the educational program in the specialty "Pharmacy", the organization has resources for organizing the evaluation of students' practical skills (University Standard "Professional Practice"), which examines the distribution of responsibilities and powers in practice in accordance with the Matrix of distribution of responsibilities and powers, which includes main section: Consultation on internship and provision of internship programs, a list of practical skills.

*Experts, while conducting a survey of the Academic staff of the university, received answers to the question "What teaching methods are most often used in the learning process" by degree of importance (from more significant to less significant)? The following picture emerges: oral analysis of the lesson topic - 85.2%, analysis of situational problems - 84%, work in small groups - 75.9%, oral questioning of students - 75.1%, problem-based learning - 67%, test solving - 60.9%, written assignments - 60.5%, interactive training - 57.5%, compilation and solution of cases - 53.6%, practical classes on clinical skills in the educational and clinical centre - 49.7%, lectures - 39.2%,*

*completing abstracts - 30.6%, completing projects, coursework - 16.7%, rewriting thematic information from monographs - 8.4%.*

*63.1% of teaching staff completely agree that this survey is useful for developing recommendations for improving key areas, 21.9% partially agree, and 15% completely or partially disagree.*

*Analysis of the question of whether organizational leaders take into account the opinions of teaching staff in matters related to the educational process, research work, and clinical work; more than half of the teachers (56%) answered in the affirmative that they systematically listen; rarely, do not listen or do not know the answer - noted 44% of respondents.*

*Almost 2/3 of students (69.7%) are satisfied with the schedule of classes in the disciplines of the educational program; every 3rd (30.3%) completely, partially disagree or doubt it.*

## **2.4 Basic biomedical sciences**

As fundamental sciences in the educational program, the main biomedical disciplines play a key role. They provide a theoretical basis for subsequent study in other disciplines and promote the development of clinical thinking. Basic biomedical courses are studied, during which the graduate masters the basics of anatomy, physiology, general pathology, pathological physiology, the basics of pharmacology and others. The study of these disciplines underlies the study of medical professional fields.

Knowledge of anatomy, physiology and pathology helps pharmacists understand how drugs interact with the human body. This allows them to provide more accurate and informative advice to patients about the use of medications and their effects on health. Understanding basic biomedical principles allows pharmacists to identify potential risks and side effects of medications and warn about interactions with other medications.

Employees of the department of pharmaceutical disciplines participate together with the State Public Enterprise “Centre for the Prevention of HIV Infection” of the Akimat of Astana in the implementation of socially significant scientific research in the field of providing medicines to HIV-infected patients. Title of the study: “Cross-sectional study to assess health literacy in the health of HIV-infected patients in selected age groups in the city of Astana.” This study is also directly related to the plan for conducting scientific research projects at the Department of Pharmaceutical Disciplines of NJSC “Astana Medical University”, presented on the topic “Theoretical and scientific-methodological foundations of research in the field of drug circulation, management and marketing in pharmacy, pharmaceutical education.” Studying the sub-topic “Mechanism for increasing the availability of medicines in the Republic of Kazakhstan (using the example of HIV infections)” will also contribute to the development of medicine provision in general.

Employees of the Department and School participate in the development of the Professional Standard “Pharmaceutical Activities” of the Republic of Kazakhstan and perform expert work within the framework of membership in professional associations, such as the ALE “Association for the Support and Development of Pharmaceutical Activities”, “Association of Clinical Pharmacists and Pharmacologists of the Republic of Kazakhstan”, “Association of Pharmacists and support of pharmaceutical education and science.”

The thematic plan of disciplines is revised annually in order to update and adapt to the needs of the healthcare system, recommendations of employers and suggestions of students, which is reflected in the syllabuses of disciplines. EP "Pharmacy" is updated annually taking into account changes in science and practice, opinions and needs of employers. The current EP “Pharmacy” has been updated in accordance with the [State Compulsory Educational Standards-2022](#) and is included in the register of educational programs of the Ministry of Education and Science of the Republic of Kazakhstan (as of December 2023).

## **2.5 Clinical sciences**

The cycle of major disciplines is aimed at developing practical knowledge and skills necessary to solve key problems in the professional activity of a specialized specialist, effective interaction with

patients and other healthcare professionals when providing medical care to the population, developing thinking, and developing decision-making skills.

The core disciplines of the Pharmacy program are: Medical and pharmaceutical merchandising. 2. Industrial technology of drugs. 3. Pharmacognosy. 4. Pharmaceutical chemistry. 5. Management and economics. 6. Medicines quality assurance system. 7. Pharmaceutical management and marketing. 8. Medicines quality assurance system. 9. Pharmaceutical management and marketing. 10. Synthesis, standardization of drugs and chemical-toxicological analysis. 11. Pharmacovigilance and falsification of medicines.

The volume of the cycle of basic disciplines is 47.3% of the total volume of the master's educational program or 142 academic credits. Of these, 93% or 132 academic credits are allocated to the university component. The volume of the cycle of major disciplines is 32.7%, or 98 academic credits of the total volume of the master's educational program. Of these, 90% or 88 academic credits are allocated to the university component. In addition to the cycles of the university component prescribed in the structure of the educational program, there are elective components that are developed by departments based on the demand of the labour market.

The cycle of basic and core disciplines of the EP "Pharmacy" are formed taking into account the provision of graduates with sufficient clinical knowledge and skills. Pharmacists need to acquire sufficient knowledge, clinical and professional skills after completing their training. With the appropriate knowledge and skills, pharmacists are able to ensure the safe and correct administration of medications, as well as provide valuable advice on their use. For this purpose, the curriculum includes disciplines that are studied at clinical sites, clinical departments or simulation centres: "First Medical Aid", "Introduction to the Clinic", PP "Toxicological Chemistry".

At the University's facilities, students gain practical experience in promoting public health, disease prevention, and effective communication with patients on drug counselling.

The Pharmacy program is more focused on aspects of drug administration and pharmaceutical practice rather than clinical work directly with patients. This is due to the need to cover multiple aspects of pharmaceutical activities, such as drug development, production and formulation. As a result, the time frame and resources allocated for practical work in clinical sites, including internal medicine, surgery, psychiatry, family medicine, obstetrics, gynaecology and paediatrics, may be limited within a given educational program.

## **2.6 Scientific method**

Ensuring the unity of educational (teaching and educational), scientific and practical processes are the main components of the educational structure of the University. The formation of creative professional thinking skills is achieved through mastering scientific methods of cognition and research.

Modern scientific research methods in pharmaceutical activities are studied from the basics of scientific research to the processes of scientific research organizations that constitute Research based learning.

Students' research work plays an important role in their educational process and professional development. This is not only a way to expand knowledge in a certain area, but also an opportunity to apply theoretical knowledge in practice, develop critical thinking and data skills.

One of the key roles of research work for students is to promote academic growth. Participation in research allows them to gain a deeper understanding of the subject being studied, master the skills of analysing and interpreting information, and learn how to effectively formulate hypotheses and conclusions. The experience and knowledge gained during the research process can help them when looking for a job or further admission to a master's degree. Students gain skills in scientific research and critical evaluation of information within the discipline "Fundamentals of Clinical and Evidence-Based Medicine." While studying evidence-based medicine, students acquire key skills: evaluating clinical trial designs, analysing levels of evidence, formulating clinical questions using the PICO method, and searching global databases for information. They learn to critically evaluate a variety of types of research, from original papers to meta-analyses and clinical guidelines. These skills enable students to navigate the medical literature, identify relevant scientific publications, critically analyse



their content, and create structured abstracts or reviews with an emphasis on the practical application of research data to clinical work.

From the junior year, students of the School of Pharmacy participate in scientific clubs, within which they work on original scientific research, publish in scientific journals, and participate in scientific and practical conferences and symposiums. Students of the EP “Pharmacy” are mainly members of scientific circles of the Department of Pharmaceutical Disciplines and the Department of General and Biological Chemistry. This experience helps them gain essential research skills, deepen their knowledge of pharmacy, develop critical thinking, and prepare for a future career in the pharmaceutical field or to pursue postgraduate education in a master's program. There are 5 scientific clubs:

- Young pharmacist-analyst, in which 3rd and 4th year students take part: Bekbolatova Dilyara, Shaikhov Madiyar, Ivanova Anastasia, Malik Zhamilya, Mendeshov Nurbolat, Bapai Marzhan;

- Young pharmacist - pharmacognosist: Kali Zhibek, Kanatbek Dana, Sabit Ardak, Rakhimova Asem, Amantayeva Zarema, Aznabay Adelia;

- Young pharmacist - toxicologist: Kyzykhan Yrysty, Butabaeva Nasiba, Nurlybay Adil, Kuanyshev Dulat, Kumarova Kamila;

- Young pharmacist-technologist: Tastemirov Sarken, Aliyeva Nazim, Batyrkhanov Zhandos, Zheniskhanova Altyнай, Bekbolatova Dilyara, Shaikhov Madiyar.

The School of Pharmacy also organizes a discussion club “Zhalyndy Zhastar”, where current topics in medicine and pharmacy are discussed.

## **2.7 Behavioural and social sciences and medical ethics**

Medical school students study behavioural and social sciences, medical ethics, and law to understand the social, economic, and cultural factors that influence patient health. This provides a better understanding of disease issues and relationships in society. The study of medical ethics and patients' rights forms ethical principles and creates principles for interaction with patients, in accordance with the law.

These subjects also develop communication skills, which are important for interacting effectively with patients of different cultures and nationalities. Understanding the national health care system helps students navigate the health care structure and understand what services are available to patients. Overall, these aspects of training not only contribute to the development of professional skills for future physicians, but also help them better understand and solve complex health problems in society. To this end, educational programs and curricula have included disciplines that include the achievements of behavioural, social sciences and medical ethics. The EP includes general education disciplines that implement the norms of current legislation, these include: “History of Kazakhstan”, “Kazakh language”, “Russian language”, “Philosophy”, “Social and communication knowledge module”, “Physical education”, etc.

The main requirements for social and ethical competencies are: knowledge of the traditions and culture of the peoples of Kazakhstan, tolerance, knowledge of the fundamentals of the legal system and legislation of Kazakhstan and trends in the social development of society, the ability to work in a team, correctly defend one’s point of view, propose new solutions, knowledge of social ethical values based on public opinion, traditions, customs, social norms and focusing on them in one’s professional activities, compliance with business ethics, correlating one’s opinion with the opinion of the team, the desire for professional and personal growth, the ability to find compromises. Advances in the behavioural and social sciences, which provide the knowledge, concepts, methods, skills, and attitudes needed to understand the socioeconomic, demographic, and cultural background of the causes, distribution, and consequences of medical health problems, are covered in the Socio-Political Knowledge Module.

In the 2nd year educational program “Pharmacy” there is a module “Fundamentals of Pharmaceutical Law, Professional Ethics and Anti-Corruption Culture”, which includes the disciplines “Pharmaceutical Law, Professional Ethics and Bioethics” and “Anti-Corruption and Pharmaceutical Legislation”. Subjects study the theoretical foundations of professional medical and pharmaceutical

ethics, deontology, pharmaceutical law, principles and norms of behaviour of pharmaceutical personnel and the study of anti-corruption legislation of the Republic of Kazakhstan, strengthening the immunity of future pharmaceutical workers against corruption, developing integrity and an anti-corruption culture, responsibility and the formation of intolerance to manifestations of corruption.

The discipline “Ethical and Deontological Aspects in the Pharmaceutical Sphere” focuses on the study of ethical and professional aspects related to work in the field of pharmaceuticals. In this course, students learn the rules, regulations, and principles that govern the practice of pharmacists, as well as the major ethical dilemmas they may encounter in the course of their work.

Issues of patient confidentiality, ethical aspects of interaction with clients and other medical professionals, as well as the basic ethics and standards of professional conduct in pharmaceutical practice are discussed.

## **2.8 Educational technologies, teaching methods and practical training**

Responsibility for the selection and implementation of innovations in the educational process lies with the Centre for Transfer of Educational Technologies, which provides training for Academic staff on innovative teaching methods.

To ensure that students achieve the expected learning outcomes in the bachelor's program of the specialty "Pharmacy", namely in the field of modern educational technologies, the School of Pharmacy practices teaching methods and practical training:

- Practical (laboratory) classes: oral questioning, work in small groups, discussions, presentations, case study - study based on cases, working with medical literature, searching for information on the Internet, discussing the results of individual and group assignments.

- Student work with educational and additional literature, with literature on electronic media and on the Internet; preparation of individual and group presentations on the analysis of medical and pharmaceutical articles, development and presentation of individual and group projects.

Scientific research skills are achieved through the applied teaching and assessment methods: Problem-based learning (PBL), Research-Based Learning (RBL). Their analysis is considered from the perspective of evidence-based medicine.

To integrate related sciences and disciplines, students study modules along with the compulsory component disciplines. The use of modular training contributes to the understanding and formation of the worldview, civic and moral positions of the future specialist, competitive based on an orientation towards a healthy lifestyle, self-improvement and professional success.

One of the ways to develop students' responsibility for the learning process, to ensure students' preparation for further independent learning and lifelong learning is to organize student's independent work, which involves the introduction of an informal approach to the organization of IWSs, a variety of types of IWSs, their objective evaluation and shared participation in the evaluation for IWS in the admission rating and the final grade of the discipline. IWS provides for students to conduct an analytical review of the current problem of the discipline, prepare a presentation, become familiar with innovative technologies in a particular field of activity, and the basics of evidence-based medicine. Interactive methods allow students to develop a creative approach to learning.

## **2.9 Management of the educational program**

Management of the educational process, reflected in the self-assessment report (*Standard 2*) and general approaches to management were confirmed during a visit to the Department of Pharmaceutical Sciences and the Department of General and Biological Chemistry and conversations with heads of departments and their employees. At the same time, verification of standard 2 showed that the activities of structural units, namely the Management of the educational program, are carried out on the basis of constructive interaction of all interested participants: administration, teachers, students and representatives of practical healthcare. Teachers, students and employers are directly involved in the educational process and development of Educational Programs, also through representation in the advisory bodies of the university.

The educational program is developed by leading employees of the department of pharmaceutical disciplines and is coordinated with experts in this field. Taking into account the

comments and suggestions of experts and other interested parties, it is discussed at the department, then at a meeting of the School of Pharmacy and, after a positive decision is made, it is sent for consideration by the QAC of the EP. After discussion at the QAC EP, the draft EP with an extract from the QAC EP is submitted for approval to the Academic Council. After approval by the Academic Council, the EP is approved by the Academic Council, then for inclusion in the EP register of the Ministry of Education and Science of the Republic of Kazakhstan, the School of Pharmacy submits to the Centre for Administrative Development a paper and electronic version of the EP with an extract from the meeting of the Academic Council.

Individual Academic staff plans are carried out in accordance with KPI plans. Incentives for teachers and departments that have fulfilled the established KPIs are carried out through the implementation of the task of the Operational Plan of NJSC "AMU" "Formation of an effective system of motivation and retention of employees based on the introduction of differentiated wages, a system of additional payments and incentives for achieving KPIs." In addition, the incentive system provides for additional payment and bonuses for additional work activities: for an academic degree, for an honorary title, for teaching in a foreign language in accordance with the [Regulations on remuneration, bonuses and social security for employees of NJSC "AMU" PL-76-20](#). In accordance with the Minutes of the Board meeting dated December 22, 2022, [changes and additions were made to the Regulations](#), which included additional payments for publications in journals indexed by Scopus and Web of Science.

The experts got acquainted with the work of the departments, including the department of pharmaceutical disciplines, whose staff includes Academic staff with an H-index of 3, and the department of general and biological chemistry, whose staff includes Academic staff with an H-index of 8. A total of 3 meetings were held (with the Academic staff of the departments and the dean of the School pharmacy) and during a cross-interview it was established that Astana Medical University provides the educational process of university, postgraduate training and continuing medical education for specialists in the educational program "Pharmacy". The learning process consists of higher (5 years) and postgraduate education (master's degree lasting from one to two years and doctoral studies lasting three years). This experience allows Academic staff responsible for the implementation of the EP to be involved in current contemporary issues in a practical environment through interaction and teaching with current industry specialists, to study their needs and modify the EP in accordance with the latest requirements.

During the inspection, experts familiarized themselves with the list of cases at the departments; a contingent of Academic staff at the undergraduate level, as well as accelerated (shortened) training; with the regular teaching load of teaching staff; with educational and publishing activities of departments; Research and development work at departments; new educational technologies; educational and methodological base of the departments; academic mobility program; with a production internship program; CDP program.

Experts gave recommendations on updating academic mobility programs and CDP programs for Academic staff.

### **2.10 Relationship to medical practice and health care system**

AMU regularly evaluates employer satisfaction with university graduates in order to identify the compliance of the educational program with the real requirements of the labour market and opportunities for its improvement. The compliance of the competencies of students and graduates with the requirements of their positions is also analysed. Recommendations received from the medical community are taken into account when making changes to the university's educational program. In addition, the major department of pharmaceutical disciplines trains masters and doctoral students in Pharmacy, which allows graduates to continue their studies at the next levels of education.

Teachers of the department, responsible for the implementation of the educational program (EP), are involved in current modern issues in a practical environment, study their needs and modify the EP in accordance with the latest requirements of modern educational programs.

The preparation of students in the specialty “Pharmacy” is aimed at meeting the needs of practical healthcare. The AMU annually analyses the demand for pharmaceutical personnel in the labour market by region, collects and analyses feedback from employers. The annually updated educational program, developed jointly with experts from practical healthcare, allows for changes to be made by introducing new disciplines that expand and deepen students’ knowledge in accordance with the current requirements of the healthcare system. Every year the university hosts a Job Fair. The main goal of the event is cooperation between employers and the University in the field of training and employment of students.

Astana Medical University is a specialized base in the field of pharmacy and provides a lot of opportunities and conditions for qualified training of specialists. The joint effective activities of the University and pharmaceutical organizations provide training, education and continuous professional development of personnel in the field of healthcare based on the integration of theory, practice and science.

*During a conversation with the management of the organization, experts received the following information:*

1. Completely satisfied with the methods of assessing knowledge and skills - 67.5%, partially 5th part of students (19.3%), completely, partially disagree or doubt 13.2%.

2. The content of the educational program (list of disciplines) in the chosen specialty fully meets the expectations of students - 65.8%, partially - 24.1%, does not satisfy in 10.2% of cases.

3. Students note that teachers in the classroom use active and interactive teaching methods regularly - 56.6%, sometimes and rarely - 36.5%, cannot decide and do not know - 6.9%.

4. When asked “how often is a teacher late for the start of classes,” almost 2/3 of students note that this did not happen (72.9%), sometimes - 20.4%, systematically - 4.3%, do not know what to answer – 2.4%.

5. When it was asked about feedback after completing classes (listens to your opinion, conducts a mini-questionnaire, works on mistakes), students note that this is done on an ongoing basis - 58.9%, sometimes in 4 cases (25.4% ), rarely and do not know – 13.2%.

6. The fact that the teacher (mentor, curator) of this educational organization is an example for students as a professional doctor, a person (ethics, communications, appearance, speech) is fully agreed by 67.2% of students; A third of students (32.8%) completely, partially disagree or doubt.

Regarding the survey, experts noted that it is necessary to strengthen the work on the development and implementation of innovative educational technologies in the educational process.

***EEC conclusions based on the criteria.*** Complies with 36 standards: completely -36.

***Recommendations for improvement:*** no

## **Standard 3: ASSESSMENT OF STUDENTS**

### **3.1 Policy and evaluation system**

Assessment acts as a system of various forms and methods of qualitative or quantitative assessment of the results of the educational process, including the educational achievements of students. Methods for monitoring and evaluating knowledge are set out in the document “Regulations on the ongoing monitoring of academic performance, intermediate and final certification of students” PL-AMU-13-21 in which the forms for conducting final control are updated annually, which is specified in the [Academic Policy of NJSC “AMU” P-AMU -17-23](#).

During the entire period of studying the disciplines, various types of work are evaluated, provided for by the syllabuses, which are developed in accordance with the [Working Instructions for the development of an educational and methodological complex of disciplines at the Astana Medical University NJSC RI-AMU-68-21](#).

The maximum rating for the discipline is 100 points, of which a maximum of 60% is allocated to evaluating current performance in the semester, and 40% to the final control in the discipline. The minimum number of points that a student must score in a discipline/module is 50. At the department

level within the discipline, the forms of control, the timing of control activities, and the number of points by which the mastery of the material of a given block (colloquiums, tests, tests) are determined.

Summative assessment is a type of assessment that is carried out at the end of the academic period, as well as subjects/modules is studied in accordance with the educational program, with scores being assigned to the electronic grade book.

At the university, all assessment methods are fully compatible with teaching and learning methods and cover the assessment of all student competencies, both during practical classes and during exams. The study of control and measurement tools (test questions, tasks in test form, situational tasks, and practical and communication skills) showed that the organization has implemented an appropriate assessment policy that allows for a comprehensive evaluation of students' educational achievements. During the interview, students were told about the forms of assessment: *67.5% were completely satisfied with the methods of assessing knowledge and skills, 5th of the students (19.3%) were partially satisfied, 13.2% were completely, partially disagree or doubt.*

The methods used to evaluate student competencies are defined in discipline syllabuses, which are discussed at departmental meetings and the QAC. The assessment criteria are brought to the attention of students in the first lesson in each discipline, and are also presented in the syllabus. Achievement of student learning outcomes is assessed through appropriate teaching and evaluation methods.

All means and methods of evaluation, a variety of qualitative and quantitative criteria, the effectiveness of their organization during the educational process and, finally, for evaluating the results of mastery at the final stages of training make it possible to achieve all levels of graduate competence and meet the needs of society.

Thus, to verify the data of *standard 3*, the experts asked questions to the head of the department of the Centre for Planning and Development of Academic Activities about assessing the student's educational achievements. The principle of assessment is regulated in the Academic Policy of the University and in the syllabus of the module/disciplines. Each department independently approves the assessment criteria indicating all parameters and their weight in the assessment and indicates them in the module/discipline syllabus. When developing control measures and methods for their assessment, the specifics of teaching the module/discipline are taken into account. Monitoring of students' educational achievements is carried out in order to determine the degree to which they have mastered the state standard and competence. The university provides the following types of controls: midterm, intermediate and end-of-course assessment.

Monitoring of the development of students' competencies is carried out based on the results of the end-of-course assessment of students' knowledge, according to the Form for conducting intermediate and final certification (in the 2023-2024 academic year), approved by the Academic Council of the University, which is formed by the Centre for Planning and Development of Academic Activities.

While checking the accounting of grades, experts included questions about the entry of current grades into educational journals.

During a visit to the organization and during an interview with employee Iztileu Nurzhan Sarsenbayuly, a teacher at the department of pharmaceutical disciplines, the commission was convinced that there is a documentation system that is transparent and accessible to all teachers and staff, and includes documents such as the nomenclature of the department's affairs, annual operational plans, annual reports, position of the department, agreements with teachers and students, memorandums with leading partner universities, agreements with practice bases and educational and methodological documentation (EMCD, curricula, syllabuses, journals), assessment tools (checklists, statements), certificates, awards and verifications. A review of the website showed that its pages contain documents necessary for students (syllabuses, methodological instructions) and there is information about the list of references, which is regularly updated.

### **3.2 Assessment that promotes and supports learning (formative assessment)**

Assessment of students' educational achievements is carried out using various forms and methods of assessment aimed at determining the actual level of development of expected learning outcomes. The methods used to assess students' educational achievements must meet the criteria of reliability and validity and be student-oriented.

Each student upon admission to the University becomes familiar with the Academic Policy and the “Code of Academic Integrity” K-AMU-01-20.

The organization evaluates the reliability and validity of assessment methods using the Platonus AIS. In order to improve information services for all subjects of the educational process, in accordance with the requirements for educational institutions, the AIS “Sirius” has been introduced at the University since 2013, and from the 2022 academic year AIS “Platonus” <https://pl.amu.kz/>.

Information about the progress of all students is available in an automated system, access to which is available to teachers, students, employees of the School, and the Registrar's Office.

*Students shared their opinions: when asked about the availability of office equipment (computers, laptops, printers) in classrooms and practice centres for students, 51% answered positively, 24.2% partially agreed, every 4th student was completely, partially dissatisfied and doubtful. (24.7%). Teachers provide students with methodological and didactic materials, additional literature to prepare for classes: completely agree - 60.7%, a quarter of students partially agree with this statement (24.6%), disagree, partially agree and doubt - 14.7%, are not familiar with this question – 34.6%. The majority of students are completely satisfied with the library collection/resources - 62.6%, partially - 23.3%, completely, partially dissatisfied or have doubts - 13.9%. 64.3% of students are completely satisfied with access to electronic educational resources, 21% are partially satisfied, 14.65% are completely, partially dissatisfied or have doubts.*

The University has established student support services. The university has dean's offices, a Registrar's Office, a Student and Employee Service Centre (e-University), a library, a centre for planning and development of academic activities, and a centre for international cooperation. All these support services are structural divisions of the university and have their own regulatory documentation when working with students. The registrar's office maintains a history of students' educational achievements throughout the entire period of study, which is reflected in the transcript. The transcript is issued upon request of the student for any period of his/her studies.

### **3.3 Assessment to support decision making (summative assessment)**

The criteria used for assessing the activities of students in mastering the curriculum, reflecting the results of the formation of knowledge, skills and abilities, and the development of their abilities and, finally, the criteria associated with the assessment of the final results of learning, the activities of the teacher, optimization of means and methods of educational work ensure the achievement of the main mission of the University - training of highly qualified and competitive graduates. The result of the implementation of the School's educational program is the results of the final state certification.

The SAC report contains comments and Recommendations for improvement, including forms of control and assessment methods, which are discussed at the Academic Council. In accordance with the principles of the League of Academic Integrity, the university revised the format for conducting final tests. Monitoring of the development of students' competencies is carried out based on the results of the final control of students' knowledge in accordance with the Form for conducting intermediate and end-of-course assessment in the 2023-2024 academic year, approved by the Academic Council of the University, which is formed by the Centre for Planning and Development of Academic Activities. The final grade for the discipline is calculated only if the student has positive grades in both the midterm and final tests.

The final control in a written format is carried out through encryption of students' work in classrooms and computer classes at the university according to the schedule under the supervision of the educational process quality audit group.

According to the order of the Rector “On conducting the exam by video recording” No. 684-n/k dated November 24, 2023 ([https://docs.google.com/document/d/1I4gcawm8vem5BUu\\_sR5hx\\_Izm6FZquQf/edit?usp=drive\\_link](https://docs.google.com/document/d/1I4gcawm8vem5BUu_sR5hx_Izm6FZquQf/edit?usp=drive_link))

&uid=111501284103414436515&rtpof=true&sd=true) exams are conducted under continuous video surveillance. Systematically ensuring the reliability and validity of assessment methods in the context of the educational process is a critical aspect of ensuring academic quality. Carrying out examinations by testing in specially equipped computer classes equipped with video surveillance systems provides the opportunity to monitor the testing process in real time.

Until 2019, at all levels of education, knowledge assessment was in the form of current, midterm and final control. Since 2020, the assessment format at all levels of education is assessment of knowledge during midterm and final tests without issuing a daily assessment.

Employees of the School of Pharmacy conduct an analysis based on the results of the winter and summer examination sessions, which is submitted to the meeting of the QAC and the Academic Council of the university.

The experts recommended maintaining training logs to reflect assessments of ongoing monitoring.

### **3.4 Quality control**

The educational process quality audit group is responsible for planning and implementing a quality assurance system for educational activities. At the University, the educational process quality audit group regularly conducts student surveys in order to improve the quality of the educational process and study the opinions of respondents. An analysis of satisfaction with teaching is carried out, weaknesses and strengths are identified, all errors are taken into account, and the reasons for unsatisfactory average grades are identified.

All information about the assessment policy, assessment methods, including evaluation criteria, examination criteria, weight and criteria for student progress, the appeal procedure, the number of permitted retakes and conditions for retaking the exam are contained in the Academic Policy, which determines the procedure for organizing training at the University in higher education programs and postgraduate education. The document includes a policy in the field of quality assurance, rules for admitting applicants, internal regulations for students, a rating system for evaluating educational achievements of students, end-of-course assessment of students, rules for organizing and conducting re-attendance of students' classes, as well as other requirements for the educational process.

Academic policy is updated annually in accordance with changes in regulations and proposals from interested parties.

Methods and forms for evaluating the final learning outcomes are reflected in the educational program, which is updated in accordance with the university standard "Model for evaluation of educational programs", approved by the decision of the Board of January 12, 2024.

***EEC conclusions based on the criteria*** comply with 13 standards: completely – 13.

***Recommendations for improvement:*** none

## **Standard 4: STUDENTS**

### **4.1 Student Selection and Admission Policy**

In accordance with the requirements of the Legislation of the Republic of Kazakhstan, the AMU has established a policy for the admission of Academic staff with the provision of equal educational opportunities. The process of selection and admission to study at the AMU is carried out on the basis of regulatory legal and internal regulatory acts, internal regulatory documents of the university, regulating the process of admission and selection and posted on the corporate website of the university.

By placing a state educational order and an educational grant for higher education, at the expense of the republican budget or local budget, as well as paying for training at the expense of the student's own funds and other sources, admission to the NJSC "Astana Medical University" is carried out for educational programs of higher education.

To participate in the competition for the award of an educational grant for higher education at the expense of the republican budget or local budget and (or) for enrolment in paid education, persons

with secondary, technical, vocational or post-secondary education are allowed, with the exception of those entering related areas of higher education training, providing for shortened periods of study, who have passed the Unified National Test (hereinafter referred to as UNT) and scored at least 70 points according to its results. For example, the distribution of the state educational order for the 2023-2024 academic year is 10 students at the AMU.

In order to organize and coordinate mechanisms for admission and confirmation of enrolment, the Admissions Committee (AC) division was created by decision of the board of directors. The organization of the work of the PC is carried out in accordance with the Standard Rules for admission to training in educational organizations that implement educational programs of higher and postgraduate education. The composition of the Admissions Committee is approved by order of the Chairman of the Board - the Rector of the University.

Number of accepted students (paid department) in the EP “Pharmacy” for the 2019-2020 academic year – 46; for the 2020-2021 academic year – 17; for the 2021-2022 academic year – 61/5; for the 2022-2023 academic year – 34; for the 2023-2024 academic year – 32 with a passing score of 70.

Number of accepted students in the EP “Pharmacy” of a shortened form of study: for the 2019-2020 academic year – 24; for the 2020-2021 academic year – 91; for the 2021-2022 academic year. – 27; for the 2022-2023 academic year - 12; for the 2023-2024 academic year – 22.

The state order is 10 students, which in comparison with KazNMU named after S.D. Asfendiyarov is almost 1.7 times less.

#### **4.2 Counselling and support for students**

The university staff has introduced and staffed a responsible structural unit - the Centre for Social and Educational Work, which provides psychological, social and financial support to students. Volunteer movement ([Regulations on the volunteer movement PL-AMU-09-12](#), approved by decision of the board of JSC “AMU” No. 41 dated November 30, 2012): volunteer organizations “Zhastar Zhyluy”, “Ak Zhurek” and “Bonum-I”. Guided by the Decree of the Government of the Republic of Kazakhstan dated March 12, 2012 No. 320 “On approval of the amounts, sources, types and Rules for the provision of social assistance to citizens who receive social assistance,” NJSC “AMU” allocates social assistance to the vulnerable segment of students. According to the [Regulations on Student Dormitories of the University \(PL-AMU-24.129/01-18\)](#) preferential categories of students (orphans left without parental care, disabled people of groups I and II, from single-parent families due to the loss of a breadwinner, etc.) are provided places to stay in a hostel. Student organizations have been created and are functioning at the University: the University Student Council, which includes: the student dean's office, the student dormitory council, etc.; Club of the Cheerful and Resourceful; Local Education Authority "Medical Youth" of Kazakhstan; Student scientific organization "Veritas"; Enactus – Club of student entrepreneurs; Kazakhstan organization of medical youth KazMSA. The organization's activities are aimed at: providing knowledge of rights in the field of health care, the basics of sign language, and the ethics of justice; creation of social projects, the opportunity to develop your skills, volunteering; collaboration with other countries, cooperation with UNICEF, Y-PEER, SCORP action; Student scientific club in cardiology - Cardiology club; International student association; International Student Organization; Student Scientific Society NJSC “AMU”; AMU Talkies – a club that organizes motivational lectures with guest speakers; Student scientific circle “Vita&Mors”; SO "Association of Pharmaceutical Students NJSC "AMU".

For the fruitful activities of student organizations, close cooperation has been built with the Youth Policy Department of the Akimat of the city of Astana, the Department of the Agency of the Republic of Kazakhstan for Anti-Corruption in Astana, the youth wing of the “Zhastar Rukhy” party of the “Amanat” party, the prosecutor’s office and the Department of Internal Affairs of the city of Astana, the National Security Committee, various public associations and foundations, and other organizations interested in preventive work with young people. The University has a Career and Employment Centre, which provides advisory and career guidance services to students.



Upon admission to study, a quota is provided for the admission of persons of Kazakh nationality who are not citizens of the Republic of Kazakhstan, orphans and children left without parental care, as well as citizens of the Republic of Kazakhstan from among young people who have lost or were left without parental care before adulthood, disabled people of I and II Group, disabled people since childhood, disabled children, persons equal in benefits and guarantees to participants and disabled people of the Great Fatherland War.

The Government of the Republic of Kazakhstan has established an admission quota for different categories of citizens, including citizens with disabilities of the first and second groups, disabled people since childhood, as well as disabled children.

For citizens who graduated from rural educational organizations, a quota for admission to higher educational institutions of the Republic of Kazakhstan is established, approved by a resolution of the Government of the Republic of Kazakhstan.

Confidentiality is guaranteed in the provision of support services, which consists of protecting and not disclosing personal information of students, which helps create a trusting environment in the provision of consultations.

The School of Medicine is committed to ensuring that services and support are available to students, transparently informing them of consultation options and ensuring confidentiality when providing care. Student support services have been established at the University. The AMU has dean's offices, an admissions committee, psychologists, a registrar's office, a service centre for students and employees (e-University), a centre for social and educational work, a career and employment centre, student government, an institute of curators, a legal service, a library, and a planning centre and development of academic activities, centre for international cooperation. All these support services are structural divisions of the university and have their own regulatory documentation when working with students.

***EEC conclusions based on the criteria.*** Comply with 15 standards: fully – 15.

***Recommendations for improvement:*** none

## **Standard 5: ACADEMIC STAFF**

### **5.1 Policy on the formation of academic staff**

The personnel base of NJSC "AMU" is reflected in the documents: [Personnel policy](#), approved by the decision of the Board of August 20, 2020 No. 23, "Internal labour regulations of NJSC "AMU" (PR-AMU-25-17), order No. 24-n/k from 01/20/2021 "On the distribution of responsibilities, as well as the scope of powers and responsibilities between members of the Board of NJSC "Astana Medical University", ["Rules for the formation of regulations on a structural unit"](#) (PR-AMU--01-21), ["Rules for the formation of official instructions"](#) (PR-AMU-02-21), job descriptions of employees, [process map "Human Resources Management"](#) (KP-AMU-PP-16-16), "Code of Corporate Culture and Ethics", approved by the decision of the Board of Directors dated September 8, 2012 city No. 8.

The staff of the university teaching staff is determined in accordance with the normative indicators established by the Law of the Republic of Kazakhstan dated July 27, 2007 No. 319-III "On Education"; Order of the Minister of Education and Science of the Republic of Kazakhstan dated October 31, 2018 No. 647 "On approval of state mandatory standards and standard professional educational programs in medical and pharmaceutical specialties"; Order of the Minister of Health of the Republic of Kazakhstan dated January 21, 2021 No. KR MOH-6 "On approval of the formation of tuition fees for education programs in the field of healthcare"; Order of the Minister of Education and Science of the Republic of Kazakhstan dated October 31, 2018 No. 606 "On approval of the average ratio of the number of students to teachers to calculate the total number of Academic staff of organizations of higher and (or) postgraduate education, with the exception of the Academy of Justice, military, special educational institutions, educational organizations in the field of culture."

Current procedures for the admission, registration, and dismissal of teaching staff and employees are carried out by the HR Department. Recruitment of teachers is carried out through a competition for filling vacant positions of teaching staff, the procedure for which is regulated by the Rules for the

competitive filling of positions of teaching staff and scientific workers of NJSC "Astana Medical University" (PR-AMU-20-18) and job descriptions. The numerical composition of the Academic staff is established in accordance with the university staffing table.

The total number of Academic staff in the reporting year is 1,425 employees. The staffing level of the teaching staff is 100%. The departments of the AMU employ 91 doctors of science, 206 candidates of science, 67 PhD doctors, 46 teachers with the academic title of professor, 80 associate professor, 20 associate professor. The share of teachers with academic degrees is 43.2%.

Total employees at the department of pharmaceutical disciplines: 34, of which 28 are full-time teachers, 6 part-time.

Shukirbekova Alma Boranbekova - Doctor of Pharmaceutical Sciences

Arystanova Tanagul Akimbaevna - Doctor of Pharmaceutical Sciences

Arystanov Zhalgaskali Mergalievich - Doctor of Pharmaceutical Sciences

Atimtaykyzy Ainash - Candidate of Biological Sciences

Ahelova Sholpan Lesbekovna - PhD

Asilbaeva Jamilya Abzalovna - Candidate of Pharmaceutical Sciences.

Togaeva Nadira Yerbolsynovna - Candidate of Pharmaceutical Sciences

Smagulova Fatima Magauyevna - Candidate of Pharmaceutical Sciences

Torsykbayeva Bigamila Bayakhmetovna - Candidate of Pedagogical Sciences

Baisalova Galiya Zhumamuratovna - Candidate of Chemical Sciences

Hirsch indices:

Shukirbekova Alma Boranbekova - 3

Ahelova Sholpan Lesbekovna - 2

Baisalova Galiya Zhumamuratovna - 2

Bekmuratova Kymbat Kuanyshovna - 1

Sadykov Nurlan Khadyrzhanovich - 1

Department of General and Biological Chemistry

Total staff at the Department of General and Biological Chemistry: 23 teachers; in the state - 24, 25 units.

Hirsch index of the Academic staff

1. Sapieva Ardak - 1

2. Bazarkhankyzy Aidan - 1

3. Bolatov Aidan - 4

4. Gabbasova Anar - 1

5. Seitembetov Talgat - 3

6. Seitembetova Amankul - 8

## 5.2 Academic activities and professional ethics of teachers

The academic activities of the university are regulated in accordance with the LSI *"Academic Policy of NJSC Astana Medical University P-AMU-17-23"*, approved by the decision of the Board of NJSC "Astana Medical University" No. 35 dated December 08, 2023, as well as various internal documents: 1) *"Personnel policy of NJSC Astana Medical University P-AMU-03-23"*; 2) *"Internal quality assurance system of NJSC "AMU SU-AMU-81-21"*, adopted by decision of the University Board No. 3 dated January 28, 2022; 3) The personnel policy of NJSC "AMU", reflected in the documents: *"Internal Labour Regulations of NJSC "AMU"* (PR-AMU-25-17 dated May 19, 2017); *"Distribution of management responsibilities"*; *"Rules for the formation of regulations on divisions"* (PR-AMU-02-13 dated November 18, 2013); *"Rules for the formation of job descriptions"* (PR-AMU-01 dated November 18, 2013); *"Job descriptions of employees", process map "Human Resources Management"* (KP-AMU-PP-16-16); *"Code of Corporate Culture and Ethics"* (dated 09.28.12).

The professional conduct of Academic staff is subject to high standards of ethics, professionalism and responsibility. Requirements for the level of qualifications, competence, content, quality and working conditions for the Academic staff of the University are regulated by Order of the Minister of Science and Higher Education of the Republic of Kazakhstan dated November 20, 2023

No. 591 “On approval of the professional standard for teachers (faculty) organizations of higher and (or) postgraduate education.”.

The university provides new and existing teachers with comprehensive information on topics related to the academic process: introductory module of the School of Young Teacher club “Teacher in medical education and science organizations”; creation of a platform for the implementation of the MOOC “Massive Open Online Courses of NJSC “Astana Medical University” (<http://mook.amu.kz/>), through which advanced training programs and electronic certification of students in the MOOC format are carried out. Currently, the MOOC platform hosts 18 online courses for teaching staff and students.

### **5.3 Continuous professional development of Academic staff**

AMU provides educators with equal opportunities for continuous professional development in their careers that contribute to the achievement of the mission and educational outcomes.

As part of the faculty development program of the NJSC “AMU” for 2017-2021, the development of the potential of the teaching staff was carried out according to a cumulative system in the context of 5 key competencies: effective teacher, researcher/scientist, communication skills, leader/organizer and professional. Since 2023, the development of the Academic staff of NJSC “AMU” has been carried out within the framework of the Concept “Development of effective technologies and teaching methods at NJSC “Astana Medical University””. Upon completion, students are issued a document confirming successful completion of the seminar or participation in the master class (certificate). All issued certificates are posted on the platform <https://cert.amu.kz/> for the convenience of students and transparency of the work of the Centre for Transfer of Educational Technologies.

CDP in professional competencies of Academic staff is implemented by the HR department and the Institute of Continuing Professional Education.

In order to implement the State Health Development Program of the Republic of Kazakhstan “Densaulyk” for 2016-2019 and the Road Map, the project “Development and implementation of a program for the development of medical ethics and communication skills of medical workers” was carried out, which was successfully implemented at the University. 547 Academic staff of clinical departments and 69 Academic staff of theoretical departments studied at the seminars “Development of communication skills of students in clinical disciplines” and “Development of communication skills of students in theoretical disciplines”.

Incentives for teachers and departments that have fulfilled the established KPIs will be carried out through the implementation of the task of the Operational Plan of NJSC “AMU” “Formation of an effective system of motivation and retention of employees based on the introduction of differentiated wages, a system of additional payments and incentives for achieving KPIs.”.

***EEC conclusions based on the criteria.*** Complies with 8 standards: fully – 8.

***Recommendations for improvement:*** none

## **Standard 6: EDUCATIONAL RESOURCES**

### **6.1 Material and technical base for teaching and learning**

The University has a sufficient material and technical base, which ensures the implementation of the Educational Program of the School of Pharmacy at all levels of education.

The University's classroom fund has 5 educational buildings with lecture halls and classrooms with multimedia support, a simulation centre, computer classes with Internet access and modern powerful computers, modern laboratories. In addition, all structural units have been computerized, as evidenced by the presence of computer classes in the departments.

The library fund carries out a full operation of the library, equipped with reading rooms, a co-working office, where anyone can get absolutely freely. The work of these offices is organized according to the work schedule. There are free rooms provided for preparing students for practical classes, for example, at the department of general chemistry and biological chemistry.

At the Department of Pharmaceutical Sciences there is an educational pharmacy equipped with modern pharmacy counters and shelves for storing medications. The pharmacy provides students with the opportunity to gain practical skills in dispensing medicines and medical devices in accordance with the requirements of the current legislation of the Republic of Kazakhstan in the field of healthcare.

The AMU has social facilities - the "AMU Medical Centre" LLP, two student dormitories with a total area of 11,439 sq. m., a gym, a conference room, 2 canteens and buffets in academic buildings. The University has a 120-apartment residential building with a total area of 8104.7 sq. m., where employees of NMH subsidiaries and the University live. Also, 35 University employees are provided with 34 service apartments in the residential complexes "Otandastar", "Kakharman", "Tamyz", "Aiken", "Satti". The Medical Centre is designed for 72 visits per shift. Fulfils the state order for the provision of medical care within the framework of the guaranteed volume of free medical care and (or) in the system of compulsory social health insurance.

The University Museum gives viewers the opportunity to walk through the historical pages of the university.

## **6.2 Resources for clinical training**

The educational program of the specialty "Pharmacy" includes the following types of internships:

- educational internship in botany (2nd semester);
- educational internship on introduction to the specialty (4th semester);
- educational internship on the technology of dosage forms (6th semester);
- work experience internship in organizing pharmaceutical activities (6th semester);
- work experience internship in pharmacognosy (8th semester);
- work experience internship in industrial technology of drugs (8th semester);
- work experience internship in management and economics of pharmacy (semester 7);
- work experience internship on quality control and standardization of medicines (10th semester);
- work experience internship in toxicological chemistry (10th semester).

The internship program is structured in accordance with a specific stage and course of study. Thus, after the 1st year, students undergo educational internship in botany (30 hours), the purpose of which is to consolidate the knowledge and skills acquired by students in the process of studying the discipline "Botany", improving skills in determining the morphological characteristics of different plants. This practice is carried out in the surrounding areas of Astana.

After the 2nd year, students undergo educational internship for an introduction to the specialty (30 hours), during which they become familiar with the general principles of legal regulation, the general structure, purpose, tasks and functions of pharmacies, the organization of production, storage and dispensing of medicines and acquire skills to comply with the basic requirements of the sanitary regime and conduct sanitary education work.

After the 3rd year, students undergo work experience internship in the technology of dosage forms (30 hours) and work experience internship in the organization of pharmaceutical activities (90 hours), during which they: acquire a general understanding of the basics of preparing medicines in a pharmacy, become familiar with technological stages and operations preparation of dosage forms, gain practical skills and competencies in the practical activities of a pharmacist-technologist; get acquainted with the conditions of future professional activity, learn the working hours in a pharmacy, and the rules of communication with patients.

After the 4th year, work experience internship is organized for students, during which they consolidate the knowledge and skills they acquired in the process of studying the discipline "Management and Economics of Pharmacy", acquire the skills and abilities of conducting organizational, managerial and financial and economic activities of pharmacy organizations (90 hours). Students also undergo work experience internship in pharmacognosy (90 hours) and industrial drug technology (90 hours). The purpose of the internship in pharmacognosy is to consolidate the knowledge and skills acquired by students in the process of studying the discipline "Pharmacognosy",

to improve practical skills in collecting medicinal plant materials, conducting their diagnostics, and the rules of preparation, drying and storage. This practice is carried out at the bases of NJSC “Karaganda Medical University” (JSC “International Scientific and Production Holding «Phytochemistry») and NJSC “South Kazakhstan Medical Academy” (educational and professional base for growing, collecting and processing medicinal plants, Kaska-su village, Tolebi region). The purpose of the internship in industrial technology of drugs is to consolidate the knowledge and skills acquired by students in the process of studying the discipline “Industrial technology of drugs”, familiarization with the technological process, factory equipment for the production of drugs. In 2022 and 2023 4th year students completed this internship at the Tashkent Pharmaceutical Institute and pharmaceutical enterprises in the city of Tashkent, Uzbekistan.

At the end of the 5th year, students are given work experience internship, during which they consolidate the knowledge and skills they acquired in the process of studying the discipline “Toxicological Chemistry” and become familiar with the rules for conducting analytical diagnostics and forensic chemical examination (90 hours). Students also undergo practical training in quality control and standardization of medicines (90 hours). These types of practices are carried out at the bases of the Republican state budget-supported enterprise “Centre for Forensic Expertise” of the Ministry of Justice of the Republic of Kazakhstan

The organization of professional practices in the educational program of the specialty “Pharmacy” is carried out at the Non-JSC “AMU” in accordance with the requirements of the University Standard “Professional Practice”. The document regulates the requirements for planning and organizing, conducting practice, requirements for students during internship, responsibilities of the head of internship from the department, responsibilities of the head of internship from the institution (internship base), monitoring, evaluation and improvement of internship. The provisions of the University Standard also provide for professional internship for students in relevant organizations at the place of residence of their parents, and describe the procedure for organizing it in the regions.

### **6.3 Medical research and scientific advances**

An interview with 539 teachers showed an analysis of the question of whether organizational leaders take into account the opinions of Academic staff in matters related to the educational process, research work, and clinical work: more than half of the teachers (56%) answered in the affirmative that they systematically listen; rarely, do not listen or do not know the answer, noted 44% of respondents.

*In the question about the educational organization’s support for the participation of teachers in conferences (international, republican), almost every 3rd teacher (29.1%) answered positively; those who do not receive support from the organization of financial support in this matter and others were 2/3 or the majority (70.9%).*

The School of Pharmacy integrates current scientific advances and practical research into the educational process of Academic staff.

Research activities are carried out by the university Academic staff, PhD-doctoral students, master's students, taking into account the priority areas of pharmaceutical sciences.

Students participate in the Student Scientific Society, performing fragments of research work, publish the results of their research, speak at scientific student conferences and participate in student clubs: “Young Pharmacist-Analyst”, “Young Pharmacist-Pharmacognosist”, “Young Pharmacist-Toxicologist”, “Young pharmacist-technologist”, “Young pharmacist-organizer”, as well as in the student organization “Enactus”. Students took part in scientific conferences at the republican and international levels and won prizes:

5 initiative research projects are being implemented in 2024, registered with the National Centre for State Scientific and Technical Expertise. Registration cards are available at the link [https://drive.google.com/drive/folders/1kTWwjMppLhRfzyL4NuvBvWbjCYdAL\\_cT?usp=drive\\_link](https://drive.google.com/drive/folders/1kTWwjMppLhRfzyL4NuvBvWbjCYdAL_cT?usp=drive_link)

They participate in start-up projects - a mobile application for checking drug interactions «Drug Data» with the participation of students.

### **6.4 Information resources**

The University has access to the automated information system “Platonus” <https://pl.amu.kz/>; to the library <http://www.bibl.amu.kz>; to the portal of multimedia textbooks <https://mbook.kz/>; to the electronic library catalogue <https://elib.kz/>; to the distance learning platform <https://dl.amu.kz/>; openlabyrinths (<http://olab.amu.kz:5181/>); to LMS Moodle (modular object-oriented dynamic learning environment). The library provides users with access to its own (electronic library, repository) and subscription databases, under a national license to international full-text resources: the web of science (clarivate analytics) - <https://www.webofscience.com/wos/woscc/basic-search>; sciencedirect (elsevier)- <https://www.sciencedirect.com/>; scopus (elsevier) - <https://www.scopus.com>– <https://www.elsevier.com>; springer – <https://www.springer.com>; ebscohostcinal- <https://www.ebsco.com/products/ebscohost-research-platform>; cochrane library - <https://www.cochranelibrary.com/>; wiley online library - <https://onlinelibrary.wiley.com/> etc. University students have free access to the portal of multimedia electronic textbooks (<http://amu.mbook.kz>), which contains electronic resources of textbooks developed by the University Academic staff on the basis of the Multimedia Electronic Textbook Studio of NJSC "AMU" <https://docs.google.com/presentation/d/1dbTy4qdoDdrAJEOPU4Tyy5Om6RPKWFeb/edit#slide=id.p4>.

The Academic staff at the Department of Pharmaceutical Sciences, realizing the high responsibility in training highly qualified personnel, as well as preparing graduate students for the upcoming state independent examination, took measures to improve the quality of knowledge taught during the period of distance learning. Classes were conducted online using such learning platforms as Zoom, instant messengers - Skype, WhatsApp, with practical skills being practiced using available materials. Video lectures are also being modernized, with access to Instagram, links and files with materials for self-study of students in preparation for classes are attached.

### **6.5 Educational expertise**

*While surveying the University teaching staff, it was revealed that in matters of career growth and development of competencies, 74.95% completely agree with this statement, 21.15% partially agree, 3.9% disagree and others. 70.13% completely agree that the AMU has the opportunity to engage in scientific work and publish research results, 23.01% partially agree, 6.86% disagree and other categories. While it was asked about membership in the advisory and advisory bodies of the university (method council, academic council, academic council, etc.), the overwhelming majority (77.18%) noted that they do not participate in the work of these bodies; every tenth person participated in the work of educational program committees (10.02%), Academic Council - 6.49%, Clinical Council - 2.60%, Methodological Council - 1.86%, Academic Council - 1.11%.*

Work on the analysis, examination and implementation of educational programs is carried out by working groups from among the teachers of the AMU and representatives of practical healthcare under the control of the activities of the Committee for Quality Assurance of Educational Programs of the School of Pharmacy. In order to improve the quality of the educational programs being developed, the trends of the world's leading universities with which the School of Pharmacy maintains partnerships are monitored. Specialists in the visiting professor program are attracted, with whom agreements are concluded in the field of promising opportunities for updating the publication activity of the AMU faculty. NJSC "Astana Medical University". Under the academic mobility program, it sends teachers, master's students, residents, students, and doctoral students to study at other universities of the Republic of Kazakhstan or countries near and far abroad. Evidence of the effectiveness of the programs is: transcripts for diplomas, certificates, concluded partnership agreements in the field of healthcare and medical education.

CDP courses, winter and summer schools are organized, and programs are implemented - KPI, reflecting the activities of all departments; incentive payments for publishing scientific articles in journals indexed in Web of Science and Scopus are being updated; A competition is planned for “The Best Teacher of NJSC “AMU”. The Centre for Continuing Education at the AMU conducts CDP courses for university Academic staff in pedagogy, new educational technologies, computer literacy, psychology and specialization profiles. Certificates issued by Academic staff are evidence of

completion of these courses.

## **6.6 Educational exchange**

In order to integrate education into the international educational space on the basis of concluded memorandums of understanding, treaties, international cooperation agreements, the University cooperates with leading foreign universities: Seoul National University, Vilnius University, Lithuanian University of Health Sciences, Henri Mondor Hospital at the University of Paris, University Applied Sciences HAMK, University of Ljubljana, University of Maribor, Ariel University, London School of Hygiene and Tropical Medicine, etc. Over the past five years, more than 100 students and teachers have participated in the academic mobility program at medical universities in Kazakhstan. The Academic staff of the AMU actively participated in the academic mobility program, gave lectures, and conducted master classes for partner universities: Bukhara State Medical University (Uzbekistan); Kyrgyz State Medical Academy named after I.K. Akhunbaeva (Kyrgyzstan); Tashkent Medical Academy; Tashkent Pharmaceutical Institute (Uzbekistan); completed internships at Istanbul Medeniyet University (Turkey), Heidelberg University (Germany), Open Medical Institute (Austria), Tbilisi State University (Georgia), Lithuanian University of Health Sciences (Lithuania), Abo Academy, Universities of Applied Sciences in Finland, etc. ., conducted online classes for students of Omsk State Medical University (Russia).

The expansion of new information and communication technologies remains relevant in the implementation of the scientific internship program.

***EEC conclusions based on the criteria.*** Out of 18 standards, they comply: 15 are fully met, 3 are partially met.

### ***Recommendations for improvement:***

- 1) To intensify scientific research of students and Academic staff of the School of Pharmacy, including participation in the dialogue platform “Commercialization Reactor”; submitting applications for competitions financed through grant projects financed by JSC “Science Foundation” or authorized bodies in the field of higher education and healthcare.
- 2) To update memorandums and agreements with practice bases in the specialty “Pharmacy”.
- 3) To open a training and production complex on the basis of the university with the aim of organizing work experience internship for students in the specialty “Pharmacy”.
- 4) To open a laboratory for collective use to conduct research work.

## **Standard 7: QUALITY ASSURANCE**

### **7.1 Quality Assurance System**

Monitoring the quality of educational programs of the University of NJSC "AMU" is ensured in accordance with international standards ("European standards and guidelines for quality assurance in the European Higher Education Area" (ESG)) and in accordance with the standards of the national educational policy of the Ministry of Education and Science of the Republic of Kazakhstan.

The University strives to improve its activities through the implementation of an integrated quality management system based on the Excellence Model (<https://drive.google.com/file/d/1rzRs2MTtjjnDPccIB4VuWn1ZJQXRq3N5/view?usp=sharing>). An IMS management structure has been developed <https://amu.edu.kz/upload/images/struktura-2024.jpg>.

The main components of the quality of educational services according to the [Guidelines for Assuring the Quality of Education](#) are the quality of the result (knowledge, abilities, skills of graduates) and the quality of the processes for achieving the result (their compliance with state educational standards).

Policies and processes play a key role in a university's consistent quality assurance system. They represent a cycle of continuous improvement and help establish the highest responsibility of the institution. This contributes to the development of a culture of quality, where all internal stakeholders accept responsibility for ensuring the quality of education and actively participate in processes at all levels. The effectiveness of policies in ensuring quality is demonstrated by taking into account the

relationship between research, learning and teaching, and by taking into account the national and strategic context and approach to the learning process.

The school establishes procedures for the development and approval of educational programs, adhering to established goals and expected learning outcomes.

The process of monitoring the quality of educational programs and all expertise in the field of education within the university is carried out in strict accordance with the plans of the Centre for Planning, Organization and Control of the Educational Process approved for the corresponding academic year. Among the participants in this process are representatives of Academic staff, schools, the Centre for Planning and Development of Academic Activities, as well as the Audit Group for the Quality of the Educational Process. They have access and authority to closely monitor the quality of lectures, practical training and examinations. As a result of the evaluation of internal experts, acts of non-conformity are generated, which clearly define the deadlines for eliminating the identified problems and conducting a re-examination.

### **7.2 Program monitoring and evaluation mechanisms**

The mission of the Educational Program in accordance with «EP 6B10104 - “Pharmacy”, approved by the Academic Council on June 30, 2023 by Protocol No.7, is the Training of qualified specialists of the new generation based on the trinity: education, science and internship. The purpose of Educational Programs (EP) is to ensure the quality of training of qualified personnel for the pharmaceutical industry. The duration of EP training is 5 years and the shortened form of 2-year training is 2 years. Upon completion of the educational program in the specialty 6B10104 - “Pharmacy”, the academic degree Bachelor of Health in the specialty 6B10104 “Pharmacy” - Pharmacist is awarded.

A variety of methods are used to evaluate a quality assurance system, including developing information systems, identifying stakeholder requirements, assessing student satisfaction, and monitoring and auditing. The results of these checks are discussed at the Academic Council with the aim of taking effective measures to improve all aspects of activity. Information systems about the quality of education include the following university performance indicators: student progress, demand for graduates, satisfaction of students and staff, teaching effectiveness, composition of students, availability and cost of learning resources, employment of graduates, and others.

Procedures for external quality assurance and internal quality assurance of education serve as a catalyst for the development and introduction of new opportunities for the University. External procedures also provide the public with information about the quality of the institution's activities. The medical school regularly participates in external quality assurance procedures, meeting the legal requirements for the provision of educational services. Internal examination of compliance with the teaching methodology and educational process at the university is supported by an internal audit system. This internal examination is carried out with the participation of departments, schools and structural divisions.

To ensure knowledge monitoring, the University uses a point-rating system, taking into account the storage and analysis of the results of ongoing progress monitoring, as well as for issuing summative grades for training and conducting intermediate certification of students. An electronic rating system or electronic rating sheets is used. This system is included in the general automated management system of the university. The administrator of the Office of the Registrar department generates electronic rating sheets at the beginning of each semester, after which they are saved in the system.

### **7.3 Feedback from teacher and student**

One of the mechanisms for implementing feedback in educational organizations is surveying students, teachers and employers. Monitoring (evaluation of educational programs) is carried out based on the results of a survey, collecting objective information about the effectiveness of teaching in a higher educational institution and identifying the level of satisfaction of participants in the educational process in order to determine the goal of improving the quality of education at the University.



To streamline the questioning process, the working group created and approved by the Academic Council a Catalogue of Questionnaires in three languages ([https://drive.google.com/file/d/1r51AL2huLm5ZNLrLMlxMIbqHGEMi8Ome/view?usp=drive\\_link](https://drive.google.com/file/d/1r51AL2huLm5ZNLrLMlxMIbqHGEMi8Ome/view?usp=drive_link)), as well as the Management System “Feedback Monitoring” (Minutes No. 4 of the Academic Council dated January 26, 24) [https://drive.google.com/file/d/1bisc1B1WcnkQZE6t7aWdXUlyBfhYGzuG/view?usp=drive\\_link](https://drive.google.com/file/d/1bisc1B1WcnkQZE6t7aWdXUlyBfhYGzuG/view?usp=drive_link). It is planned to use questionnaires from this Catalogue to conduct surveys using mobile applications and other information systems.

Several forms of surveying are used, including the use of QR codes and a Telegram bot. From November 1, 2023 to the present time, structural divisions, schools and departments at the University regularly conduct anonymous surveys of students on the quality of classes. The method of conducting a survey using QR codes was discussed at the University hardware meeting ([https://drive.google.com/file/d/10bU7Hpz6dFecSYLA0LyhCIGsE65vrsvc/view?usp=drive\\_link](https://drive.google.com/file/d/10bU7Hpz6dFecSYLA0LyhCIGsE65vrsvc/view?usp=drive_link)). There is a helpline with WhatsApp 87477735051, where a direct line is provided for suggestions and complaints. The results of the feedback are analysed and discussed at Staff Meetings and taken into account when planning improvement work.

QR codes are located in all academic buildings of the University, which open a link to the application form. An analysis of surveys conducted among students, for example, an analysis of the results of a questionnaire on the implementation of new educational technologies, is posted on the website ([https://docs.google.com/presentation/d/16plkCn86P04OsBvLtAfr19DEE02XEdQZ/edit?usp=drive\\_link&oid=111501284103414436515&rtpof=true&sd=true](https://docs.google.com/presentation/d/16plkCn86P04OsBvLtAfr19DEE02XEdQZ/edit?usp=drive_link&oid=111501284103414436515&rtpof=true&sd=true)). There is a blog of the rector, a blog of the dean, a callcenter <https://amu.edu.kz/ru/blogs/rectors-blog/>, blogs of vice-rectors <https://amu.edu.kz/ru/blogs/vice-rectors>.

#### **7.4 Academic achievements of students and graduates**

Evaluation of learning outcomes is carried out at the end of each module and at the end of the academic year, that is, after the completion of the educational process cycle. These results are compared with the department's goals for quality and reflecting quality indicators of academic performance. Monitoring of progress and attendance is carried out by the department in accordance with the schedule, recording data in electronic and pedagogical journals. Information about lack of attendance and poor academic performance is transmitted to the Dean's Office of the School of Pharmacy.

Control over the achievement of final learning outcomes is carried out by all departments of the University Schools. Current monitoring of academic performance, intermediate and end-of-course assessment are carried out in accordance with the standard “Educational programs: development, evaluation and updating” SU-AMU-15-22 (31.08.23 No. 25) [https://drive.google.com/file/d/1N49uSfThFhXiHJLtD2bV-g4GGROsAjUw/view?usp=drive\\_link](https://drive.google.com/file/d/1N49uSfThFhXiHJLtD2bV-g4GGROsAjUw/view?usp=drive_link), approved by the Vice-Rector for Academic Affairs.

To achieve the final learning outcomes in each discipline of the Educational Program, exam grades are taken into account, including testing, a written exam (approved by the Academic Council on January 26, 2024) [https://drive.google.com/file/d/1o3zPq-lus2sNs7JLOE884g2dQTteenMe/view?usp=drive\\_link](https://drive.google.com/file/d/1o3zPq-lus2sNs7JLOE884g2dQTteenMe/view?usp=drive_link) and/or oral exam ([https://drive.google.com/file/d/16LluvVkSdZX5h7rEbonGVxcJG0EQb911/view?usp=drive\\_link](https://drive.google.com/file/d/16LluvVkSdZX5h7rEbonGVxcJG0EQb911/view?usp=drive_link)).

The choice of elective disciplines provides an opportunity to evaluate the level of motivation in self-improvement of knowledge and skills of Academic staff. The university is introducing new evaluation methods, taking into account the need to determine competencies to evaluate the level of development of each of them.

The evaluation criteria take into account all levels of student knowledge, including level zero, where the student does not have teaching competencies; reproductive level, where the student applies knowledge but makes mistakes; the productive level, where the student successfully copes with

professional tasks, and the creative level, where the student strives for independent professional activity.

If low performance is detected among the majority of students on a certain topic of a practical lesson, additional measures are taken, such as devoting more time to studying the topic or creating a clear algorithm for explaining the topic by teachers. The school, departments and structural divisions of the University, as an internal audit of the quality of the educational process, analyse assessments to determine the best ways to solve them. For example, new innovative teaching methods are being developed

([https://drive.google.com/file/d/1eNNODu30gQKkTkjmlc0bEIHOaAah3fOj/view?usp=drive\\_link](https://drive.google.com/file/d/1eNNODu30gQKkTkjmlc0bEIHOaAah3fOj/view?usp=drive_link)).

### **7.5 Stakeholder engagement**

The education quality policy regulates educational, methodological, scientific, educational and administrative processes. The university has an effective, continuous mechanism for internal and external quality evaluation and examination of educational programs. Feedback from consumers, Academic staff and students is used to improve educational programs and periodically review them.

The Committee for Quality Assurance of Educational Programs, which operates at the School of Pharmacy, develops graduate models, educational trajectories for the training of Academic staff, monitors the continuity of levels of education in all courses of study and takes into account the needs of practical healthcare when training medical specialists. Teachers of the departments are continuously working to improve the content of educational programs, corresponding to modern global trends in the healthcare system, and analyse educational programs with the participation of employers.

***EEC conclusions based on the criteria.*** Complies with 12 standards: fully – 12.

***Recommendations for improvement:*** none

## **Standard 8: MANAGEMENT AND ADMINISTRATION**

### **8.1 Management**

The experts took into account that the entire management structure is coordinated by the Decision of the University Board, which ensures the organization of training in higher and postgraduate education programs of several Schools: School of Public Health and Management; School of Medicine; School of Dentistry; School of Paediatrics; School of Pharmacy; School of Nursing; Residency School; Research school.

The management structure of the University Board is represented by several types of activities of the university:

- 1) Academic activities represented by: Centre for Planning and Development of Academic Activities; Centre for monitoring and recording students; Office registrar; Centre for Transfer of Educational Technologies; Library;
- 2) Clinical activities represented by: Centre for Practice and Development of Clinical Activities; Career and Employment Centre; Simulation Centre; Institute of Continuing Professional Education; LLP "Medical Centre of NJSC "AMU"
- 3) Research activities represented by the Centre for the Development of Research Activities; Centre for Strategic Development; Centre for Accreditation and Rating; Centre for International Cooperation;
- 4) Corporate activities represented by: Centre for Social and Educational Work; Student and employee service centre; Museum;
- 5) Economic activity represented by: Accounting; Office of Planning and Economic Analysis; Department of Organization and Monitoring of Public Procurement; Marketing and Investment Projects Department;

The management work of the AMU is carried out by several structures: HR Department; Department of control, document flow and development of the state language; Educational Process Quality Audit Group; Cyber Security Service; Quality Assurance Centre (QMC); Project office. There are several structures in the management of the university: Department of Material and Technical

Support; Operations Management; Department of Legal Support; Information and Analytical Centre; Department of IT infrastructure and information systems administration; Occupational Health, Safety and Civil Protection Service. There is a Research Institute; Departments; Competence centres.

Academic policy is developed on the basis of LSI in the field of education, taking into account the priorities and tasks facing the university. The academic policy of the university is a system of measures, rules and procedures for planning and managing educational activities and the effective organization of the educational process, aimed at improving the quality of education and the implementation of student-centred learning.

The university's governance structure for education, clinical training, research activities, and resource allocation is accessible to all stakeholders and consistent with the mission and functions of the School of Pharmacy.

*Analysis of the question of whether organizational leaders take into account the opinions of teaching staff in matters related to the educational process, research work, and clinical work; more than half of the teachers (56%) answered in the affirmative that they systematically listen; rarely, do not listen or do not know the answer, noted 44% of respondents.*

## **8.2 Student and academic staff representation**

The University considers and determines all opportunities for the participation of students and teachers in the planning of the educational process and the implementation of educational programs. The collegial bodies of the University (Committee for Quality Assurance of Educational Programs; Academic Council) include representatives of the Academic staff of the School of Pharmacy, Practical Health Care and representatives of the Student body, with whom the content of educational programs (EP) is agreed upon. After making final adjustments, Educational Programs are approved by the Academic Council of the University. The composition of the QA (Quality Assurance Committee) "Pharmacy", which includes students, was approved by the minutes of the meeting of the Academic Council for the 2023-2024 academic year.

The position of the Students in various spheres of the University's activities (educational, scientific and social) is examined, as evidenced by the functioning of independent student organizations, such as: the University Student Council, the Dormitory Student Council. There are 18 student organizations at the University.

The participation of student organizations is manifested in solving problems regarding the representation of students in the collegial bodies of the University; to coordinate the activities of student clubs; to protect the legitimate interests and rights of students; to implement measures aimed at improving the financial and living conditions of University students and solving their existing problems; to assist in improving the learning process and organizing research work of University students; to assist in improving the creative potential and professional development of University students; on coordinating the draft student budget during the formation of the Development Plan and monitoring its implementation; to develop relations with student, youth and other organizations, public associations in the Republic of Kazakhstan and abroad.

## **8.3 Administration**

The University administration, by decision of the Board of Directors at the University, is represented by 4 positions of vice-rectors for academic, clinical, scientific and financial-economic and administrative work, performing their professional functional responsibilities in accordance with the Regulations on the Board and the Procedure for the distribution of responsibilities, as well as the scope of powers and responsibilities between members of the Astana Medical University. The University has an economic council <https://amu.edu.kz/upload/iblock/d60/d604145f7e3b6a6f2a4d81bf5cbbb8a6.pdf>, the mission of which ensures the validity of planning, management of project activities at the University, increasing the efficiency of financial and economic activities in terms of increasing income and optimization operating expenses, as well as investments of the AMU/subsidiaries.

With the administrative support of the University, the School of Pharmacy achieves its goals in improving teaching, teaching effectiveness and implementing research activities at the higher education level. The organization of the Educational Process is carried out at the proper level. The

opportunity to use Educational Resources is provided: students' access to modern educational materials, technologies and library resources for successful mastery of the material; student access to training programs tailored to the individual needs of students, taking into account their career goals and interests; access to participation in various research projects based on the Department of Pharmaceutical Sciences. The university provides financial support to students and teachers for the successful implementation of scientific projects. Mechanisms for studying needs, allocating and distributing resources are prescribed in the relevant internal regulatory documents of the University, the regulations on the Economic Council and the Process Maps. Resource management, that is, the effective allocation of budget and human resources, ensures the smooth functioning of the School of Pharmacy. Communication systems, such as a social network, portals for students and teachers (university websites), ensure effective interaction within the educational community.

#### **8.4 Training budget and resource allocation**

Planning of expenses in the context of 1 student for financial support is regulated by the order of the acting Minister of Health of the Republic of Kazakhstan dated January 19, 2021 "On approval of the methodology for determining the cost of training for education programs in the field of healthcare." The cost of training per 1 student, including all types of expenses, is allocated in accordance with the Agreement for the provision of training services for specialists with higher and postgraduate medical and pharmaceutical education (the document is attached to the standard).

From the budget funds, the University Administration allocates the necessary funds spent on improving the material and technical base of departments, updating licensed software, technical equipment for educational, scientific and information activities, providing educational literature, equipping with computer equipment, purchasing furniture and educational equipment, capital and current repairs, etc. In order to determine the provision of material and technical equipment, training rooms, and working conditions, a commission consisting of members of the University Board visit clinical sites.

In terms of equipping with a material and technical base, the University from 2020 to 2023 made investments for the purchase of equipment in the amount of 16,979,800 thousand tenge.

The Price List of paid educational services of NJSC "Astana Medical University" for the 2023-2024 academic year, approved by the Decision of the Board of Directors of NJSC "Astana Medical University" dated June 14, 2023 No. 6, has been presented. Amendments and additions were made by Decision of the Board of Directors dated November 13, 2023 No. 11. In the specialty "Pharmacy" for citizens of the Republic of Kazakhstan (1st year students) – the cost of training is 1,150,000 tenge; for students (foreign citizens studying in English) - 2,500,000 tenge. For students in a shortened form of study (1st year, 2023) in a 2-year program, the cost of training is 750,000 tenge.

#### **8.5 Interaction with the health sector**

The University effectively interacts with the healthcare sector and related industries, ensuring the exchange of information, close cooperation and a high standard of student training.

As part of the educational program 6B10104 "Pharmacy", students undergo both educational and practical training, which contributes to gaining practical experience. Working in pharmacies allows students to integrate the knowledge and skills of pharmaceutical practice directly into their studies. This approach provides students with the opportunity to become familiar with key aspects of drug supply, learn the principles of pharmacy operations, and develop skills in interacting with patients in the context of pharmaceutical care. The bases for professional training of students cover various pharmacy organizations, pharmaceutical companies and research laboratories.

In accordance with bilateral agreements with partner organizations, all the necessary conditions for the practical training of students were successfully created. This includes ensuring students have access to the required number of teaching and work spaces. The opportunity for students to directly participate in the work processes of these organizations, as part of the provision of pharmaceutical services, is also taken into account, and conditions are provided for students to conduct scientific research, including the use of laboratory equipment and other technical means available at these practical bases.

The joint effective activities of the University and pharmaceutical organizations provide training, education and continuous professional development of personnel in the field of healthcare based on the integration of theory, practice and science.

Official status is given to cooperation with partners in the healthcare sector through the conclusion of memorandums and agreements with clinical sites for the organization of students undergoing curricular practical training and work experience internship, as part of the implementation of the educational program 6B10104 “Pharmacy”. As part of these agreements, joint events are held on an ongoing basis (joint scientific and practical conferences, educational webinars, master classes, job fairs, etc.)

Regular analysis of employers' feedback on graduates' qualifications, which is carried out through questionnaires, helps assess the degree of their satisfaction with graduates' competencies. It also helps to identify aspects that require additional attention and improvement in the training process.

The university annually analyses the demand for pharmaceutical personnel in the labour market by region, collects and analyses feedback from employers. Based on these recommendations, elective courses are included in the curriculum. The annually updated educational program, developed jointly with experts from practical healthcare, allows for changes to be made by introducing new disciplines that expand and deepen students' knowledge in accordance with the current requirements of the healthcare system. Every year the university hosts a Job Fair. The main goal of the event is cooperation between employers and the University in the field of training and employment of students.

***EEC conclusions based on the criteria.*** Complies with 16 standards: fully - 16.  
***Recommendations for improvement:*** none

## **Standard 9: CONTINUOUS RENEWAL**

Continuous improvement of the educational program is carried out through the development of professional standards. This practice in the organization of education on the issue of improving the implementation of the educational program is carried out in the AMU. The Professional Standard is approved for specialists throughout the Republic of Kazakhstan. The initiator of the development of professional standards is the Ministry of Health of the Republic of Kazakhstan. At a working meeting of the Astana medical and pharmaceutical cluster, chaired by the Vice Minister of Health of NJSC AMU, it was instructed to form a working group and a road map. The working group included other medical universities of the Republic of Kazakhstan. In the Republic of Kazakhstan, the AMU is the organizer of the development of professional standards.

As is known, the implementation of higher education programs should ensure the receipt of high-quality professional qualifications. The mandatory need to assess professional qualifications should be a significant incentive for continuous education and self-education. The criterion for assessing the quality of education is a graduate who works in his specialty and performs labour functions efficiently. General cultural, general professional and professional competencies are enshrined in educational standards, and the necessary labour functions of workers are regulated in professional standards.

In order to improve educational programs, communication with practice bases is being expanded. As part of the educational program 6B10104 “Pharmacy”, students undergo both educational and practical training. Industrial practice is the practical part of the educational process of training qualified specialists, carried out in the conditions of a real production base. During practical training, the results of theoretical educational and practical training are consolidated and concretized; students acquire the skills of practical work in the assigned qualification and chosen specialty or profession.

The transformation of practice, as close as possible to future professional activity, into the educational process is a natural phenomenon, determined by the requirements of the State compulsory educational standards of the Republic of Kazakhstan.

Connections with production bases are expanding. Practice bases have been concluded with [NJSC “Medical University Karaganda”](#) (JSC “International Research and Production Holding

“Phytochemistry”); NJSC "South Kazakhstan Medical Academy" (educational and professional base for growing, collecting and processing medicinal plants, Kaska-su village, Tolebi region); Tashkent Pharmaceutical Institute (Uzbekistan), with the Republican state budget-supported enterprise “Centre for Forensic Expertise” of the Ministry of Justice of the Republic of Kazakhstan .

The bases for professional training of students cover various pharmacy organizations, pharmaceutical companies and research laboratories.

The quality assurance policy in universities is aimed at maintaining high quality standards of university educational services, as well as ensuring the connection between teaching, research and innovation.

AMU adheres to the principle of continuous improvement, renewal and improvement of all areas of activity, based on an analysis of internal capabilities and taking into account the new strategic prospects of the state, which was repeatedly emphasized during meetings with the Academic staff of the AMU. As it was emphasized, these processes are carried out as part of the implementation of the strategic management of this university, based on studying the needs of the labour market, healthcare and society, as well as on the basis of promising research and the results of our own study, analysis, and evaluation of literature on medical education. An example of the process of renewal and dynamic development of a university (AMU) is the updating of the organizational structure of the university and strategic development indicators in accordance with today's modern requirements for the quality of higher and postgraduate medical education in the healthcare system.

During the reporting period, the AMU annually reviews the organizational management structure in accordance with the ongoing reforms in the field of education and healthcare of the Republic of Kazakhstan, changes in the practice of global educational management. The organizational structure is reviewed and approved at meetings of the Board of Directors (12/22/2023, <https://amu.edu.kz/upload/images/struktura-012024.jpg>). The University operates a web portal <https://amu.edu.kz/ru/>, which provides information about all the activities of the University (information about the University, its structural divisions, educational programs, events taking place at the University, educational methodological, scientific areas; corporate data, etc., which is dynamically updated throughout the year). To ensure a regular review of all areas of activity, the University has established an information management process (corporate governance) in accordance with the legislation of the Republic of Kazakhstan and internal documents of the university (corporate documents), [https://amu.edu.kz/ru/korporativnoe-upravlenie/korporativnyedokumenty/?PAGEN\\_1=2](https://amu.edu.kz/ru/korporativnoe-upravlenie/korporativnyedokumenty/?PAGEN_1=2)). The information policy provides the Company with information to all interested parties in accordance with the legislation of the Republic of Kazakhstan.

The University is actively introducing digitalization with the development of online services, libraries, classrooms, personal electronic accounts of students and teaching staff, as evidenced by the work in all departments of the university. In order to effectively manage the human resources of NJSC “AMU”, maintain at an optimal level the numerical and qualitative composition of employees, their professional and social development, as well as a reasonable combination of processes for updating and retaining personnel, the **Personnel Policy** , is being updated, which determines the general direction of the university’s work with personnel.

All departments have portals with authorized access: the automated information system "Platonus" (<https://pl.amu.kz/>), distance learning - this is the LMS "Moodle" - educational content management, distance learning platform (dl. amu. kz ), “OES” proctoring, electronic document management system, additional services such as corporate mail, financial accounting systems - 1C-accounting, personnel management and others, electronic library (<https://elib.amu.kz/>), electronic catalog libraries (<https://elib.amu.kz/ru/lib/>) and electronic document management systems (Salem Office). To provide feedback, a block of the Chairman of the Board-Rector and a block of Vice-Rectors are maintained <https://amu.edu.kz/ru/blogs/vice-rectors/>. The University pages are maintained on social networks, such as Instagram ([https://www.instagram.com/amu\\_mua\\_official/](https://www.instagram.com/amu_mua_official/)), YouTube (<https://www.youtube.com/channel/UCxoJTRfEXwrojx0wub6ZvQQ/featured>), Facebook

(<https://www.facebook.com/MeduniverAstana/>), Telegram (<https://t.me/amuedukz>), WhatsApp, this is proof of a fairly high base in the university infrastructure.

To create conditions for improving the quality and effectiveness of academic, scientific and clinical processes and providing conditions for training competitive personnel, a new [University Development Strategy for 2022-2026](#), was approved, which is aimed at reorganizing the university into a Research University, continuously developing on the principles of the trinity of science, education and practice <https://amu.edu.kz/ru/about-university/>. The university strategy includes a priority strategic direction aimed at continuous improvement “Development of human resources and improvement of the university management and financing system”:

-Priority direction 4.1 “Development of human resources potential of the university.”

-Priority direction 4.2 “Improving the university management system.”

-Priority direction 4.3 “Improving university financing mechanisms”

Research institutes and competence centres have been created <https://amu.edu.kz/ru/science/>.

The activities of the School of Pharmacy focus on solving important issues of the university, adequate to the objectives of the strategic development of the university and planned results, including methods for ensuring a high level of the educational process using educational technologies, integration of the results of scientific research and implementation into practical healthcare, regular improvement of all areas of the university’s activities.

The School of Pharmacy operates in accordance with the [Regulations on the School of Pharmacy PL-AMU-D.6-22](#) (Order of the Chairman of the Board - Rector of NJSC "AMU" dated November 7, 2022 No. 838-n/k).

When monitoring the process of implementation of the educational program and the progress of students, constant feedback is provided to students, teaching staff and employers through questionnaires and interviews. The participation of students in the evaluation of the educational program is also facilitated by the improvement of student self-government at the university. The survey process is authorized for the convenience and efficiency of collecting information on the educational portal <https://pl.amu.kz/>, where the “Questioning” section has been created, thanks to which full coverage of the student population, electronic counting and distribution of survey results to students is possible. Based on the analysis of the survey results, areas for improvement are identified, levelling which makes it possible to increase the level of satisfaction with the quality of education and the quality of training of students.

Scientific research plays a key role in the educational process. The results are integrated into the educational process to provide students with access to cutting-edge advances in medical science. The acquisition of skills is ensured by the active participation of students in practical classes and participation in scientific circles. At the departments, the principles of the scientific method are taught through academic disciplines such as philosophy, information and communication technologies, history, scientific research methodology, etc. To develop scientific research skills in students, the RBL (Research Based Learning) method is widely used. Students, as active representatives of scientific circles, participate in interuniversity platforms for exchanging opinions and conducting joint research (for example, KazMSA-Kazakhstan Medical Students' Association, Local Education Authority "QazMedJastary", etc.). With the support of employers in the field of pharmacy, an international scientific conference is held annually at the university, which has become a wide platform for interaction between young scientists, students of regional and foreign universities in the field of pharmacy ([https://drive.google.com/drive/folders/1p4Gy7P1\\_al\\_je2I1jvgYt6TU-TXpmyw0](https://drive.google.com/drive/folders/1p4Gy7P1_al_je2I1jvgYt6TU-TXpmyw0)).

Improving the monitoring and evaluation processes of EP at the University is carried out not only through the internal monitoring system, which includes self-assessment of departments, self-assessment of the University, internal audit of structural units, intra-departmental control, current, intermediate and end-of-course assessment of students, certification of Academic staff, but also through periodic passage of the external procedure evaluating the quality of educational programs in the form of institutional and specialized accreditation conducted by recognized national and foreign/international agencies.

**EEC conclusions based on the criteria.** Complies with 3 standards: fully – 3.

**Recommendations for improvement:**

- 1) In connection with the direction of training along the “Clinical Pharmacist” trajectory and a sufficient number of students in the specialty “Pharmacy”, divide the department of pharmaceutical disciplines into two departments: the department of pharmaceutical and toxicological chemistry and pharmacognosy and the department of drug technology and organization of pharmaceutical business on the basis of the School pharmacy.

Thus, when conducting an external evaluation of the educational program, out of 129 accreditation standards, compliance with 126 accreditation standards and partial compliance with 3 standards was established. No non-compliance with standards has been established.

**5.**

**Recomm**

**endations for improvement of the educational program “Pharmacy”:**

- 1) To intensify scientific research of students and Academic staff of the School of Pharmacy, including participation in the dialogue platform “Commercialization Reactor”; submitting applications for competitions financed through grant projects financed by JSC “Science Foundation” or authorized bodies in the field of higher education and healthcare (Standard 6).
- 2) To update memorandums and agreements with practice bases in the specialty “Pharmacy” (Standard 6).
- 3) To open a training and production complex on the basis of the university with the aim of organizing practical training for students in the specialty “Pharmacy” (Standard 6).
- 4) To open a shared laboratory for research and development (Standard 6).
- 5) In connection with the direction of training along the “Clinical Pharmacist” trajectory and a sufficient number of students in the specialty “Pharmacy”, divide the department of pharmaceutical disciplines into two departments: the department of pharmaceutical and toxicological chemistry and pharmacognosy and the department of drug technology and organization of pharmaceutical business on the basis of the School pharmacy (Standard 9).



**6. Recommendation to the ECAQA Accreditation Council on Accreditation:**

The members of the EEC established the compliance of the educational program 6B10104 “Pharmacy” of NJSC “Astana Medical University” with the Accreditation Standards for the educational program of basic medical education of medical educational organizations and came to a unanimous decision, to recommend that the ECAQA Accreditation Council, to accredit this program for a period of 5 years.

Full name	Signature
Chairperson KUZGIBEKOVA ALMAGUL BOLATOVNA	
International Expert KULIKOV OLEG VILIEVICH	
Academic Expert BOSHKAEVA ASYL KENESOVNA	
Academic Expert YERMUKHANOVA LYUDMILA SERGEEVNA	
Academic Expert METOVA ZAITUNA ABDULKAMYMOVNA	
Academic Expert BRIMZHANOVA MARZHAN DIKHANOVNA	
Expert employer ZHANTURIEV BOLAT MEIRBEKOVICH	
Expert representative of master's students ASTRAKHANOV MAGZHAN RUSTEMULY	
Expert student representative AITPAY ARUAY KANATKYZY	

Профиль качества и критерии внешней оценки образовательной программы  
(обобщение)

	Критерии оценки	Количество стандартов	БС/СУ*	Оценка		
				Полностью соответствует	Частично соответствует	Не соответствует
1.	<b>МИССИЯ И ЦЕННОСТИ</b>	8	8/ 0	8		
2.	<b>ОБРАЗОВАТЕЛЬНАЯ ПРОГРАММА</b>	36	30/ 6	36		
3.	<b>ОЦЕНКА СТУДЕНТОВ</b>	13	11/ 2	13		
4.	<b>СТУДЕНТЫ</b>	15	11/ 4	15		
5.	<b>АКАДЕМИЧЕСКИЙ ШТАТ</b>	8	7/ 1	8		
6.	<b>ОБРАЗОВАТЕЛЬНЫЕ РЕСУРСЫ</b>	18	16/ 2	15	3	
7.	<b>ОБЕСПЕЧЕНИЕ КАЧЕСТВА</b>	12	9/ 3	12		
8.	<b>УПРАВЛЕНИЕ И АДМИНИСТРИРОВАНИЕ</b>	16	14/ 2	16		
9.	<b>НЕПРЕРЫВНОЕ УЛУЧШЕНИЕ</b>	3	0/ 3	3		
	<b>Итого:</b>	<b>129</b>	<b>106 / 23</b>	<b>126</b>	<b>3</b>	
	*БС- базовые стандарты, СУ- стандарты улучшения			<b>129</b>		

Список документов, изученных членами ВЭЖ во время визита в организацию

№	Наименования документов	Количество	Дата утверждение
1.	Отчет по самооценке Образовательной программы 6В10104 «Фармация» на соответствие Стандартам аккредитации ЕЦА/ЕСАQA	1	2024 г
2.	Стандарт Университета «Интегрированная система менеджмента» СУ-МУФ-80-14	1	№34 от 10 сентября 2024 г
3.	Академическая политика НАО «Медицинский университет Астана»	1	№35 от 08 декабря 2023 г
4.	Сравнительный анализ по итоговым оценкам обучающихся	1	2023 г
5.	ГОСО высшего и послевузовского образования	1	20 июля 2022 г
6.	Кадровая политика	1	№21 от 08.08.2023 г
7.	Карта процесса	1	№8 от 22.02.2016 г
8.	Каталог анкет	1	№3.1 от 28 марта 2023 г
9.	Положение «Интегрированная система менеджмента» О Каталоге элективных дисциплин	1	№36 от 17 сентября 2013 г
10.	Положение «О студенческом представительстве»	1	№29 от 30 декабря 2019 г
11.	Положение №1 об оплате труда, премирования и социального обеспечения работников НАО «Медицинский университет Астана»	1	№32 от 22 декабря 2022 г
12.	Положение о дополнительной образовательной программа	1	№25 от 31 августа 2023 г
13.	Положение о привлечении зарубежных специалистов	1	№8 от 31 марта 2023 г
14.	Положение о Школе фармации	1	№838 от 17.11. 2022 г
15.	Положение об академической мобильности работников	1	№8 от 31 марта 2023 г
16.	Правила приема абитуриентов на обучение в НАО «Медицинский университет Астана»	1	№17 от 05.07. 2023 г
17.	Standard университета «Система внутреннего обеспечения качества НАО «Медицинский университет Астана»	1	2022 г
18.	Рабочая инструкция по ведению электронного журнала успеваемости	1	От 31.03.2022 г
19.	Образовательная программа «Фармация»	1	№7 от 30 июня 2023 г
20.	Номенклатура дел на 2024 год (Институты и Кафедры)	1	2024 г
21.	Этический кодекс обучающихся	1	26 декабря 2019 г