# IAAR **Standards** for Specialised Accreditation of Master's Educational Programmes (based on WFME/AMSE standards) (the Republic of Kazakhstan)

# INDEPENDENT AGENCY FOR ACCREDITATION AND RATING
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**АККРЕДИТТЕУ ЖӘНЕ РЕЙТИНГТІҢ ТӘУЕЛСІЗ АГЕНТТІГІ**

**НЕЗАВИСИМОЕ АГЕНТСТВО АККРЕДИТАЦИИ И РЕЙТИНГА**

**INDEPENDENT AGENCY FOR ACCREDITATION AND RATING**

# IAAR STANDARDS FOR SPECIALISED ACCREDITATION OF MASTER'S EDUCATIONAL PROGRAMMES
## (the Republic of Kazakhstan)

**Astana 2018**

# Foreword

**1. DEVELOPED AND INTRODUCED** by the Non-Profit Institution "Independent Agency for Accreditation and Rating".

**2. APPROVED AND PUT INTO EFFECT** by the order of the Director of the Non-Profit Institution "Independent Agency for Accreditation and Rating" as of May 25, 2018 No. 68-18/1-OD.

**3.** These standards implement provisions of the Law of the Republic of Kazakhstan "On Education" as of July 27, 2007 No. 319-III.

**4. ORIGINAL HOLDER** Independent Agency for Accreditation and Rating: 010000, Astana, st. B. Momyshuly, 2, VP-4G

**5. SECOND EDITION**

Standards are developed taking into consideration the recommendations of the Ministry of Health and Ministry of Education and Sciences of the Republic of Kazakhstan.

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# STANDARDS FOR SPECIALISED ACCREDITATION

## Basic Provisions

## I. Scope of Application

1.1 These standards are developed in accordance with the Law of the Republic of Kazakhstan "On Education", international accreditation standards for quality improvement in medical education (WFME / AMSE) and establish requirements for medical educational institutions and specialised accreditation of master's educational programme.

1.2 These standards determine the requirements for the specialised accreditation of master's educational programme.

1.3 This standard is used during the specialised accreditation procedure of master's educational programme of medical educational institution regardless of its status, legal corporate form, departmental subordination and form of ownership.

1.4 These standards can also be used by a medical educational institution for internal evaluation of activities and development of appropriate internal regulatory documentation.

## II. Normative References

This standard contains references to the following regulatory documents:

2.1 The Law of the Republic of Kazakhstan "On Education" dated June 27, 2007 No. 319-III.

2.2 The Law of the Republic of Kazakhstan "On Technical Regulation" dated November 9, 2004 No. 603.

2.3 The Law of the Republic of Kazakhstan "On Introducing Amendments and Addenda to Some Legislative Acts of the Republic of Kazakhstan on the Expansion of Academic and Managerial Independence of Higher Educational Institutions" dated July 4, 2018 No. 171-VI.

2.4 The Law of the Republic of Kazakhstan "On Accreditation of the Conformity Assessment" dated July 5, 2008 No. 61-IV.

2.5 Message of the President of the Republic of Kazakhstan N.Nazarbayev to the people of Kazakhstan "Five Social Initiatives of the President" dated March 5, 2018.

2.6 Order of the Minister of Education and Science of the Republic of Kazakhstan "On Approval of the Rules for the Recognition of Accreditation Bodies, Including Foreign Ones, and the Formation of a Register of Recognised Accreditation Bodies, Accredited Educational Organisations and Educational Programmes" dated November 1, 2016 No. 629.

2.7 Order of the Minister of Education and Science of the Republic of Kazakhstan "On Approval of State Compulsory Educational Standards for All Levels of Education" dated October 31, 2018 № 604.

2.8 Order of the Minister of Education and Science of the Republic of Kazakhstan "On Approval of the Standard Rules for the Activities of Educational Organisations of the Respective Types" dated October 30, 2018 No. 595.

2.9 Order of the Minister of Education and Science of the Republic of Kazakhstan " "On Approval of Rules for Organisation of the Educational Process Using Credit Education Technology" dated April 20, 2011 No. 152.

2.10 WFME Global Standards for Quality Improvement: Standards for Master's Degrees in Medical and Health Professions Education (WFME Office 2016).

## III. Terms and Definitions

This standard applies the terms and definitions in accordance with the regulatory documentation as specified in paragraph No. 2.

In addition these standards establish the following definitions:

**Academic Mobility:** transfer of students or lecturers-researchers for training or research for a certain academic period (semester or academic year) to another organisation of higher education and (or) postgraduate education (domestically or abroad) with mandatory re-crediting of completed curricula, disciplines in the form of academic credits in their organisation of higher education and (or) postgraduate education or to continue studies in another organisation of higher and (or) postgraduate education.

**Accreditation Of Educational Programs:** the procedure of recognition by the accreditation body of compliance of educational programmes (specialty) with the established standards (regulations) of accreditation in order to provide objective information on their quality and confirm the existence of effective mechanisms for its increase.

**Analysis:** a research method characterised by the identification and/or study of individual parts of the object of accreditation, the process of determining, collecting data to assess the quality of educational services.

**Site Visit of the External Expert Panel:** a generally accepted component of the holistic accreditation process, which provides for verification of reality compliance with a previously submitted self-assessment report of the higher education institution, assessing the quality and effectiveness of educational services provided, interviewing and questioning stakeholders, as well as developing recommendations for improving the quality.

**Distance Education Technologies:** an education, carrying out with application of information and telecommunication means upon mediate (in the distance) or incompletely mediate interaction of student and teaching staff.

**The Dublin Descriptors:** a description of the level and amount of knowledge, skills, abilities and competencies acquired by students upon completion of the study programme of the corresponding level (degree) of higher and postgraduate education based on learning outcomes, formed competencies, as well as the total amount of ECTS credit.

**European Credit Transferand Accumulation System (ECTS):** a student-centered method of planning, describing educational programmes, recording and recognising learning outcomes, as well as monitoring the dynamics of a student's progress along an individual educational trajectory, by determining the laboriousness (labor intensity) of disciplines for all its components.

**Quality of Educational Programme:** compliance of the level of competencies of students and graduates with the requirements of professional standards and additional requirements established by the organisation implementing educational programmes.

**Credit Technology of Training:** learning based on choice and self-planning for the students of the sequence of studying disciplines with the accumulation of academic credits.

**Master:** an academic degree, awarded to persons, mastered professional education programmes of postgraduate study.

**Master's Student:** a person studying in the master's course.

**Master's Degree:** postgraduate education, educational programmes of which are aimed at training personnel with the award of the degree of "master".

**Master's Thesis**: the graduate work of a graduate student of a scientific and pedagogical Master's course, which is an independent scientific study containing theoretical and / or practical developments of a pressing problem in the field of a chosen educational programme , based on modern theoretical, methodological and technological achievements of science and technology

**The Scientific and Pedagogical Master's Degree:** implementation of professional educational programmes of postgraduate education in the preparation of scientific and pedagogical staff for universities and scientific organisations with in-depth scientific, pedagogical and research training.

**Educational Programme:** the uniform complex of the main characteristics of education including the purposes, results and content of training, the organisation of educational process, ways and methods of their realisation, criteria for evaluation of results of training.

**Educational Monitoring:** systematic observation, analysis, assessment and prediction of the state and dynamics of changes of the results and conditions of implementation of educational processes, student body, network, as well as rating indicators of achievement of activity of organisations of education.

**Organisation of Higher and (or) Postgraduate Education:** higher education institution implementing educational programmes of higher and (or) postgraduate education and carrying out research activities.

**Assessment:** a method for determining the degree of achievement of the planned results of educational services, educational goals of the programme for decision-making and determining further directions for improving quality. Interpretation of data and evidence collected during the analysis.

**Self-assessment report:** a document developed by the higher education institution based on the results of self-assessment and submitted for consideration and decision by the accrediting body.

**Quality Assurance Policy:** the main directions that characterise the key priorities and value orientations of quality assurance development, determined on the basis of collective discussion and approved by the leadership of the higher educational institution.

**Specialised Master's Degree**: implementation of professional educational programmes of postgraduate education in management training for the economy, medicine, law, education, arts, services and business with in-depth professional training.

**Reaccreditation:** re-accreditation of the educational programme by a previously accredited accreditation body upon the expiration of the certificate of specialised accreditation.

**Learning Outcomes:** the volume of knowledge, skills and abilities confirmed by the assessment, acquired and demonstrated by students on mastering the educational programme, and the formed values and attitudes.

**Effectiveness:** the degree of implementation of the planned activities and achievement of the planned learning outcomes.

**Self-Assessment:** a procedure for self-assessment of a higher educational institution based on standards and criteria for institutional and (or) specialised accreditation.

**Quality System:** a set of procedures, units and officials in an organisation that perform certain quality management functions in accordance with the established rules and accepted practices and ensure compliance of all graduates of the educational programme with the requirements established in accordance with professional standards.

**Stakeholder:** an individual, a group of people or an organisation interested in and / or involved in activities, decision-making in a certain area.

**Student-Centered Learning:** The fundamental principle of the Bologna reforms in higher education, implying a shift of the emphasis in the educational process from teaching (as the main role of the teaching staff in the "translation" of knowledge) to learning (as an active educational activity of the student).

**Academic Programme:** a programme that defines for each subject, each discipline and (or) module the content and scope of knowledge, skills, abilities and competencies to be mastered.

**Curriculum**: a document regulating the list, sequence, volume (labour intensity) of academic subjects, disciplines and/or modules, professional practice, other types of educational activities of students of an appropriate level of education and forms of control.

**Expert Assessment:** a procedure for obtaining an assessment based on the analysis of the problem under consideration, the opinions of specialists with the aim of subsequent decision-making.

**Efficiency:** the relationship between the result achieved and the resources used.


## IV. Abbreviations and Acronyms

These standards use abbreviations in accordance with the regulatory documents specified in section 2, in addition to them, the following acronyms and abbreviations are used:

**RK –** the Republic of Kazakhstan;

**MoH –** Ministry of Health of the Republic of Kazakhstan;

**MES –** Ministry of Education and Science of the Republic of Kazakhstan;

**HEI –** Higher Educational Institution;

**EEP** – External Expert Panel;

**SAC** – State Attestation Commission;

**SCES** – State Compulsory Educational Standards;

**SPDE –** State Program for the Development of Education;

**CPD –** Continuous Professional Development;

**CME –** *Continuous Medical Education;*

**TS –** *Teaching Staff;*

**NQF –** National Qualifications Framework;

**NSQ –** National System of Qualifications;

**EP –** Educational Programme;

**MM –** *Mass-media;*

**SWOT-analysis -** *analysis of strengths and weaknesses, challenges and opportunities of organisation, the abbreviation of the English words: S -strengths, W - weaknesses, O - opportunities, T - threats.*


## V. General Provisions

5.1 Specialised accreditation of master's educational programme is carried out on the basis of these standards, which include Standard «Mission and Outcomes», Standard «Research Environment and Educational Resources»,

Standard «Admission Policy and Criteria», Standard «Master's Programme», Standard «Scientific Guidance», Standard «Dissertation», Standard «Evaluation of Dissertations», Standard «Governance and Administration», Standard «Continuous Improvement».

5.2 Standards for specialised accreditation of of master's educational programme are developed on the basis of the international standards of the World Federation for Medical Education (WFME), the Association of Medical Schools in Europe (AMSE), Organisation for PhD Education in Biomedicine and Health Sciences in the European System (ORPHEUS). with the introduction of national characteristics of the health care system and medical education of the Republic of Kazakhstan.

## VI. The Main Objectives of the Implementation of Specialised Accreditation Standards

The main objectives of the implementation of specialised accreditation standards are:

6.1 1 introduction of an accreditation model harmonised with international practice of quality assurance in education;

6.2 assessment of the quality of professional and educational programmes to improve the competitiveness of the national higher education system;

6.3 encouraging the development of a quality culture in higher education institutions;

6.4 assistance to improvement and continuous upgrading of educational programmes of medical educational organisations in compliance with the requirements of rapidly changing environment;

6.5 consideration and protection of public interests and consumer rights by provision of authentic information on the quality of education programmes;

6.6 the use of innovation and research;

6.7 public announcement and dissemination of information on the results of accreditation of the master's educational programme of medical organisations of higher and postgraduate education.

## VII. Principles for the Formation of Specialised Accreditation Standards

7.1 Presented standards for quality assurance of educational programmes of higher professional education are based on the following principles:

7.1.1 voluntariness – accreditation procedure of educational programme is carried out on a voluntary basis;

7.1.2 honesty and transparency – internal and external assessment is conducted with the utmost honesty and transparency, ensuring that information

is available to all participants in the accreditation process;

7.1.3 objectivity and independence – internal and external assessment is carried out objectively, independently of third parties (government agencies, HEI administration and public opinion) and the results obtained;

7.1.4 responsibility of medical educational organisations – primary responsibility for the quality of higher education rests with medical educational organisations;

7.1.5 confidentiality – information submitted by HEIs is used by the accreditation body confidentially;

7.2 External assessment is performed independently from the third parties (government agencies, medical educational organisations and public organisations).

7.3 Public information countrywide and abroad on accredited educational programmes is carried out in mass media, including the presentation of information on the web-site of accreditation body.


## VIII. The Procedure for Conducting Specialised Accreditation of an Educational Programme

8.1 Submission by HEI of the application for the specialised accreditation with copies of the title and permit (authorisation) documentation.

8.2 Consideration of the application of the HEI by the IAAR.

8.3 IAAR decision to start the procedure for the specialised accreditation of an educational programme. Conclusion of the contract between the IAAR and the HEI on specialised accreditation.

8.4 At the request of the educational organisation, the IAAR organises a training seminar for the working group of the educational organisation on the preparation of a self-assessment report in accordance with the criteria of standards and guidelines for specialised accreditation. This training seminar is a voluntary procedure.

8.5 Educational organisation conducts self-assessment according to the requirements established by IAAR. The final report signed by the first head (in Kazakh, Russian and English) of the educational organisation is sent to the IAAR in electronic form and in the amount of 1 (one) copy on paper.

8.6 IAAR carries out an analysis of the self-assessment report of the educational programme. Based on the results of the analysis of the self-assessment report, the IAAR makes one of the following decisions:

– «to develop recommendations on the need to improve self-assessment report»;

– «to conduct an external peer review»;

– «postpone the accreditation period due to the impossibility of carrying out the specialised accreditation procedure due to the non-compliance of the self-assessment report with the criteria of these standards».

8.7 In case of continuation of accreditation, the IAAR forms an EEP, which is approved by the IAAR General Director to assess the EP of the HEI. The quantitative composition of the panel is formed depending on the volume of the external review. It includes representatives of the academic community, stakeholders of Kazakhstan, including employers, students, foreign expert (s).

8.8 In case the decision on continuation of accrediting procedure is taken, the IAAR will agree with the organisation of education the dates of accreditation and schedule of the EEP work plan.

8.9 The duration of the site visit of the panel is usually 3-5 days. During the site visit, the educational organisation creates conditions for the work of the EEP in accordance with the Contract for the Provision of Services:

– provides an office for the work of the EEP with a workplace for each member of the EEP;

– provides for each member of the Panel an electronic and paper version of the self-assessment report;

– provides the necessary modern electronic office equipment in agreement with the representative of the IAAR and the number of EEP members;

– organises a visual inspection of infrastructure and resources, meetings, questionnaires, interviews and other forms of EEP's work in accordance with the EEP's program of the visit;

– provides the requested information;

– organises photography of EEP work.

8.10 At the end of the visit EEP prepares a report on external assessment of HEI's educational programme.

8.11. The report contains a description of the EEP's visit, an assessment of the EP's compliance with the IAAR standards, recommendations to the HEI to improve the quality of the educational programme, recommendations to the Accreditation Council. The proposals to the Accreditation Council contain a recommendation for making a decision (accredit / not accredit) and the recommended accreditation period for each educational programme.

8.12 The EEP's report, including recommendations is prepared by members of the EEP collectively. If one of the members of the EEP makes a different decision that does not coincide with the majority of the EEP members, this is recorded in the text of the report.

8.13 The EEP's report on the assessment of EP and the HEI's self-assessment report of EP serve as the basis for the Accreditation Council's decision on specialised accreditation.

8.14 The Chairman of the EEP presents to the Accreditation Council outcomes of the EEP's visit. If there are objective reasons IAAR General Director

appoints a member of the EEP to attend a meeting of Accreditation Council and present a report. Replacement of the Chairman of EEP is made by the order of IAAR General Director.

8.15 The exclusive competence of the IAAR Accreditation Council includes decision-making on accreditation or refusal of accreditation of education programme of the medical education organisation. The composition of the Accreditation Council is determined in accordance with the Regulation on the Accreditation Council. The meeting is held if a quorum is present. Accreditation Council shall have the right to make a grounded decision not corresponding with the EEP recommendations.

The Accreditation Council makes one of the following decisions:

- *«to accredit»:*

1 year - if the criteria are met in general, but there are some shortcomings and opportunities for improvement (in assessing criteria that require improvement in the range of more than 20%, the absence of strong criteria);

3 years - with positive results in general, but with some minor shortcomings and opportunities for improvement (in assessing criteria that require improvement in the range from 10 to 20%, the presence of strong criteria);

5 years - with positive results in general (in assessing criteria that require improvement in the range of no more than 10%, the presence of strong criteria);

7 years - if standards criteria are met in general and best practice examples are available (in assessing the strong criteria at least 10%, and criteria requiring improvement no more than 5%).

- denial of accreditation (in assessing at least one criterion as "unsatisfactory", the absence of strong points).

8.16 In the event of positive decision on accreditation the Accreditation Council of IAAR sends an official letter to the education organisation with the results of the accreditation and a certificate of specialised accreditation of an EP, signed by the Chairman of the Accreditation Council and IAAR General Director. Further, the decision on accreditation of the EP is sent to the Ministry of Education and Science of the Republic of Kazakhstan for inclusion in the Register of Accredited Education Programmes (Register 3) and posted on the IAAR website. The EEP report is also published on the website.

After receiving a certificate of accreditation, the educational organisation publishes on its website a self-assessment report of the EP. By agreement with the IAAR, the educational organisation has the right not to post confidential information specified in the self-assessment report.

8.17 In the event of the Accreditation Council's negative decision on accreditation the IAAR sends a letter to the organisation of education indicating the adopted decision.

8.18. The organisation of education in accordance with the Contract for the Provision of Services and the Regulations on the Commission on Appeals and Complaints Consideration may send to IAAR an appeal against the decision of the Accreditation Council. In case of doubts in the competence of the EEP and

representatives of the IAAR, or gross violations committed by members of the EEP, the organisation of education may file a complaint to IAAR.

8.19 If the educational organisation decides to undergo specialised re-accreditation (re-accreditation in the IAAR), then the application for re-accreditation the educational organisation must submit at least 6 (six) months before the end of the EP accreditation period, provided that the post-accreditation monitoring procedure was successfully completed by the educational organisation in accordance with the Regulation on Post-Accreditation Monitoring of the Educational Institutions and (or) Educational Programmes.

8.20 An educational organisation has the right to submit an application no earlier than 1 (one) year after it is denied specialised accreditation or its specialised accreditation is revoked.

## IX. Follow-Up Procedures

9.1 In the event of positive accreditation decision of the IAAR Accreditation Council, the educational organisation submits to IAAR an Action Plan on the quality improvement under the external expert panel's recommendations (hereinafter - the Plan), which is signed and sealed by the chief executive officer, and also an organisation concludes the Contract for the Provision of Services with the IAAR. The Contract and the Plan are the basis for the post accreditation monitoring.

9.2 In accordance with the Regulation on Post-Accreditation Monitoring of the Educational Institutions and (or) Educational Programmes, accredited education institutions should prepare interim reports according to the Plan. Interim reports are sent to the IAAR before the expected date of post accreditation monitoring.

9.3. Post-accreditation monitoring of the educational program is carried out in accordance with the Regulation on Post-Accreditation Monitoring of the Educational Institutions and (or) Educational Programmes.

9.4. In the event of failure to implement the Plan and the requirements put forward by the IAAR in relation to the post-accreditation monitoring, as well as lack of awareness of the changes carried out in the educational organisation the Accreditation Council shall have the right to adopt one of the following decisions:

− «to temporarily suspend the effectiveness of the EP's accreditation status»;

− «to revoke accreditation of EP by excluding it from the National Register 3, which may result in the cancellation of all previously achieved results of accreditation».

9.5 If the educational organisation refuses to conclude a Contract with the IAAR on post-accreditation monitoring, the IAAR Accreditation Council has the right to make a decision to revoke the certificate of accreditation.

## X. Procedure for Introduction of Amendments and Additions to Accreditation Standards

10.1 Amendments and additions are introduced to the current accreditation standard for the purpose of further improvement thereof.

10.2 Introduction of amendments and additions to the standard is performed by the IAAR.

10.3 In case of initiating of amendments and additions to current standard by educational organisations and other interested organisations the suggestions and remarks are to be sent by them to the IAAR.

10.4 The IAAR carries out examination of suggestions and remarks obtained from initiators for their validity and appropriateness in the prescribed manner.

10.5 Changes and additions are made to the current accreditation standards after their approval.

# XI. ACCREDITATION STANDARDS

## 1. STANDARDS «MISSION AND OUTCOMES»
### 1.1 Mission Statement of the Educational Programme

1.1.1 The medical education institution **must** state its mission and make it known to its stakeholders and the health sector it serves.

1.1.2 The medical education institution **must** ensure that its principal stakeholders participate in developing (formulating) the mission of the educational programme.

1.1.3 The mission statement **must** contain the aims and educational strategy to prepare a competent researchers at the level of postgraduate medical / pharmaceutical education.

1.1.4 The medical education institution **must** ensure that the stated mission encompasses the health problems of society, the needs of the medical and pharmaceutical care system and other aspects of social accountability.

1.1.5 The medical education institution **must** ensure that the stated mission of the educational programme is consistent with the organisation's mission and allows to prepare a competent researchers at the level of postgraduate medical / pharmaceutical education.

1.1.6 The medical education institution **must** have the strategic development plan of the educational programme that is consistent with the stated mission of the medical education institution, including issues of improving the quality of master's programmes and approved by the advisory council of the medical education institution.

1.1.7 The medical education institution **must** systematically gather and analyse the information on the quality of implementation of master's programmes, assess the strengths and weaknesses (SWOT-analysis) on the basis of which the administration together with the advisory council of the HEI should determine the policy and develop strategic and tactical plans.

1.1.8 The mission and objectives of medical education institution / educational programme**:**
  – **must** comply with available resources, the capabilities and market requirements;
  – ways of their support **must** be determined.

1.1.9 The medical education institution must provide access to information about the mission, objectives of the medical education organisation for the public (the availability of the information in mass media, on the web-site of HEI).

1.1.10 The mission of the educational programme, as well as the mission and objectives of medical education institution, must be approved by the advisory council of the medical education organisation.

## 1.2 Institutional Autonomy and Academic Freedom

1.2.1 The medical education institution implementing master's degree programmes **must** have institutional autonomy to develop and implement policies for which its faculty/academic staff and administration are responsible, especially regarding:

– design of the curriculum;

– use of the allocated resources necessary for implementation of the curriculum.

The medical education institution **should** ensure academic freedom for its staff and master's students:

1.2.2 in addressing the actual curriculum where it would be allowed to draw upon different perspectives in description and analysis of issues in medicine and pharmacy;

1.2.3 in exploring the use of new research results to improve the study of specific disciplines / issues without expanding the curriculum.

## 1.3 Educational Outcomes

1.3.1 The medical education institution **must** define the intended educational outcomes that master's students should exhibit upon graduation of of the master's programme.

1.3.2 Education in the master's programme followed by awarding the master's degree **must** provide master's student with the competencies that will enable them to become a qualified teacher and/or researcher in accordance with the principles of best research practices.

1.3.3 Completion of the master's programme **must** have potential benefits for those who continue their career outside the healthcare institution, and apply their skills gained during the mastering the master's programme, including - a critical analysis, evaluation and solution of complex problems, the ability to transfer new technologies and generate new ideas.

1.3.4 The medical education institution should ensure that the regular (at least once a year) process of renewal and restructuring of the master's programme leads to a modification of education outcomes of graduates in accordance with the responsibilities incumbent upon the graduates after the master's programme completion.

## 2. STANDARDS «RESEARCH ENVIRONMENT AND EDUCATIONAL RESOURCES»

### 2.1 Research Environment

2.1.1 The success of the individual master programmes must be ensured by the arrangement of a strong and effective research environment.

The quality of the research environment **must** be evaluated by analysing:

2.1.2 the publication of research results (number of publications, impact factor, etc.) in major of master's programme in medical education institution;

2.1.3 the involvement level of external funding for carrying out research in medical education institution;

2.1.4 the number of qualified and competent teachers, researchers in the group, at the faculty, educational institution;

2.1.5 national and international co-operation with research teams of medical organisations, universities, research centers.

2.1.6 Research **must** be carried out in accordance with international ethical standards and approved by the appropriate and competent ethics committees.

2.1.7 In order to grant access to the facilities necessary for writing a thesis, master's programmes may include training in other laboratories, preferably in another country, thus providing internationalisation.

2.1.8 Implementation of master's programmes **must** be conducted in compliance with the conditions of joint planning of the training and conducting a research and shared responsibility of the academic advisor and a master's student for the outcomes.

2.1.9 The medical education institution **should** study the possibilities of providing joint master's programmes with the award of master's degrees from both universities and joint study guide to support cooperation between higher education institutions.

2.1.10 The medical education institution **should** ensure that the process of renewal of the educational resources are in line with the changing needs, such as a admission of master's students, the number and profile of academic staff, master's programme.

2.1.11 The medical education institution **should**:

- provide sufficient autonomy in resource allocation, including a decent remuneration of teachers in order to achieve the education outcomes defined by the relevant indicators;

2.1.12 in the allocation of resources, take into account:

a) the scientific achievements in the field of medicine;

b) public health problems and their needs.

## 2.2 Physical Facilities

The medical education institution **must** have the logistics meeting licensing parameters, which include criteria:

2.2.1 classrooms, laboratories and equipment **must** be modern and comply with the goals and objectives of master's programme;

2.2.2 master's students **must** be provided with conditions for independent learning and research;

2.2.3 renewal and improvement of the facilities and resources **must** be carried out regularly.

2.2.4 The medical education institution **must** have adequate resources for the proper implementation of master's programme.

The institution's resources **must** ensure:

‒ admission of master's students,

‒ providing training in master's programme,

‒ implementation of the dissertation (thesis),

‒ scientific advising,

‒ councelling of the master's students,

‒ consideration, review and evaluation of the dissertation (thesis),

‒ award of academic master's degree,,

‒ operating costs,

‒ the cost of participation in training courses, international scientific conferences,

‒ tuition in master's programmes in establishments where it is practiced.

Resources also include a master's student scholarship, but the amount of payment may vary.

2.2.5 Resource policy **must** be aimed at support and ensuring the continuous professional development of teachers of master's programme.

2.2.6 The medical education institution **must** provide a safe environment for staff, undergraduates and those who provide the programme, including those providing the necessary information and protection against harmful substances, microorganisms, compliance with safety regulations in the laboratory and using the equipment.

2.2.7 The medical education institution **must** have a service and support service for future undergraduates, including a receptionist office, research centers and laboratories, a canteen, a medical center, sports grounds and gyms.

2.2.8 The medical education institution **has** approved procedures to improve the education environment of master's students through regular renewal, expanding and strengthening the facilities and resources, which must match the development in the practice of teaching.

### 2.3. Information Technology

2.3.1 The medical education institution **must** have the information support meeting the goals and objectives of master's programme.

2.3.2 The library **must** contain the necessary learning materials - educational, technical, scientific and reference literature, various periodic medical publications, etc.

2.3.3 Master's students **must** have timely and easy access to library resources.

2.3.4 The library **must** have a basic technical equipment to support the daily activities: fax machines, copiers, computers, printers, available for public use, and phones with voice mail or answering machine.

2.3.5 The library **must** have information website. The web site may include the following elements: links, forms interlibrary loan, electronic full-text journal articles, and feedback form.

2.3.6 Medical education institution **must** regularly monitor library resources to learn and implement strategies to meet current and future needs of master's students.

2.3.7 Master's students **must** have computer classes and terminals with access to information resources (LAN, Internet) for use.

2.3.8 In the medical education institution there **must** be control over availability and appropriate use of information resources by the master's students.

2.3.9 The medical education institution **must** constantly update, improve and expand the base of information resources with ensuring access of undergraduates to modern electronic databases, including foreign databases (Web of Science, Thomson Reuters, Scopus, Pubmed, Elsevier, etc.).

2.3.10 The medical education institution **must** open and constantly update its website's section on the master's degree programmes containing the following information:

– structure and staff of the magistracy department, responsibilities of a head and staff of the department;

– admission policy, including clear rules on the selection process of master's students;

– a list of master's programmes;

– structure, duration and content of the master's programmes;

– criteria for the appointment of an academic advisor, outlining the characteristics, responsibilities and qualifications of an academic advisor;

– methods used to assess the master's students;

– criteria for execution and writing of a thesis;

– description of the procedures for the thesis defense;

– description of a work of the State Attestation Commission for the master's thesis defense;

– program of quality assurance and regular evaluation of master's programmes;

– information about master's students taking into account the year of study;

– information about the employment of graduates of the master's degree for the last 3 years, taking into account the direction of study (scientific and pedagogical, specilised).

## 3. STANDARDS «ADMISSION POLICY AND CRITERIA»

3.1 The medical education institution **must** define and implement a policy of admission, including a clearly defined position on the process of selection of master's students.

3.2 Candidates for the master's programme **must** master professional higher education programmes (basic medical/pharmaceutical/chemical, higher professional (basic medical + internship) or postgraduate education (residency).

3.3 In the selection of future master's students one **should** evaluate research capacity of the applicant, not just consider its academic performance.

3.4 The medical education institution **must** have a system of studying employment, demand, career support and continuing professional development of graduates.

3.5 Data obtained using this system **must** be used to further improvement of the educational programmes.

3.6 The medical education institution **should** ensure that the process of renewal and restructuring leads to adaptation of admission policy of master's students subject to changing expectations and circumstances, human resource needs, changes in the system of postgraduate education and the needs of the programme.

## 4. STANDARDS «MASTER'S PROGRAMME»

### 4.1 Curriculum Model, Learning Methods and Structure

4.1.1 The medical education institution **must** define the curriculum model including integrated model based on interdisciplinary communication and a competence-based approach, using modular learning technologies, taking into account the final learning outcomes.

4.1.2 The medical education institution **must** define the purpose and objectives of the master's programme, which are aimed at achieving the mission of the educational organisation, the mission of the educational programme and the final learning outcomes.

4.1.3 The medical education institution **must** ensure that the content of the educational programme meets the requirements of the SCES and the Standard curriculum of the relevant specialty and is developed taking into account the needs of the labor market.

4.1.4 The medical education institution **must** ensure the implementation of the educational programme with appropriate working curricula, academic calendar, curriculum for disciplines, forms of the individual curriculum of future undergraduates and the individual work plan of the master's student.

4.1.5 Master's programme **must** be based on the performance of the original research, which requires analytical and critical thinking and must be carried out under scientific supervision.

4.1.6 The medical education institution **must** ensure that the educational programme is implemented in accordance with the principles of equality.

4.1.7 The medical education institution **must** ensure that the master's student fulfills its obligations in respect of doctors, teachers, colleagues, patients and their families in accordance with the Code of Conduct/Code of Honor.

4.1.8 Master's programme **must** ensure the training to master's students of ethics rules and responsible conduct of research.

4.1.9 The medical education institution **must** define the teaching and learning methods used that correspond to the educational programme and the achievement of students' competencies.

4.1.10 Master's programme **must** be structured with a clear time limit, equivalent to 1-2 years of full-time and contain:

- theoretical training, including learning cycles of basic disciplines and majors;

- practical training of master's students - different kinds of practices, professional trainings;

- research work, including the implementation of a master's thesis for the scientific and pedagogical master's programme;

- experimental and research work, including the implementation of a thesis for the specialised master's degree;

- methodological approaches and teaching principles that correspond to the educational programme and the achievement of the competencies of students.

4.1.11 The medical education institution **must** provide for the mechanisms for the implementation of pedagogical practice (in accordance with the type of master's degree) for the formation of practical skills and teaching methods among undergraduates

4.1.12 The medical education institution **must** provide mechanisms for the implementation of research practice for the formation of undergraduates' knowledge, skills, competencies in the field of the latest theoretical, methodological and technological achievements of domestic and foreign science, modern methods of scientific research, processing and interpretation of experimental data.

4.1.13 The medical education institution **must** provide mechanisms for the implementation of internship for the formation of undergraduates' practical skills, competencies and experience of professional activity on the basis of theoretical knowledge in the specialty being trained, as well as mastering advanced experience.

4.1.14 The medical education institution **must** ensure that future master's students will have the opportunity to study under the academic mobility programme, have mechanisms / procedures for admitting students from other HEIs, recognition of credits mastered under the academic mobility programme.

4.1.15 The medical education institution **must** design an appeal

mechanism, which allows master's student to revise the decision regarding their programmes and evaluation of their dissertations.

## 4.2 Master's Programme Evaluation

4.2.1 The medical education institution **must** have a programme of routine curriculum monitoring of processes and outcomes, including the routine collection of data on key aspects of the educational programme. The purpose of monitoring is to ensure the quality of the educational process, the identification of areas requiring intervention.

4.2.2 The medical education institution **must** make regular assessments of the quality of the programme on the basis of approved mechanisms, including feedback from the academic advisors, employers and master's students.

4.2.3 The medical education institution **must,** on the basis of approved mechanisms, systematically seek, analyse and provide teachers and master's students with feedback that includes the information about the processes and products of the educational programmes, including the information about malpractice or inappropriate conduct by teachers or master's students.

The medical education institution **should** ensure that the process of renewal and restructuring leads to:

4.2.4 adaptation of educational programme model and methodological approaches in training to ensure their appropriateness and relevance;

4.2.5 adjustment of programme elements and their relationships in accordance with the advances in medical science, with changing demographics conditions and health/disease pattern of the population and socio-economic and cultural conditions.

## 4.3 Involvement of Stakeholders

4.3.1 The medical education institution **must** in its programme monitoring and evaluation activities involve its academic staff and master's students, its administration and governance.

4.3.2 The medical education institution **should** involve other relevant stakeholders in the evaluation process, including representatives of academic and administrative staff, representatives of the community and public, education and health care authorities, professional organisations and postgraduate educators, and to develop mechanisms to encourage the participation of external experts in the evaluation of the educational programme.

4.3.3 The medical education institution **should** provide access to results of course and programme evaluation to all interested parties.

4.3.4 The medical education institution **should** ensure that the process of renewal and restructuring of the educational programme leads to an improvement in the process of monitoring and evaluating the programme in accordance with changes in the education outcomes and teaching and learning

methods.

## 5. STANDARDS «SCIENTIFIC GUIDANCE»

5.1 The medical education institution **must** appoint an academic advisor for each master's student, and, where appropriate, co-advisor as well to cover all aspects of the programme.

5.2 The medical education institution **must** have mechanisms / procedures regulating the process of discussion and approval of the candidacy of the scientific advisor and the research topic of the master's student in accordance with the standard requirements and the SCES.

5.3 The medical education institution **must** ensure that the candidates for scientific advisers will be selected from specialists with an academic degree and are actively involved in scientific research in the field of science in the specialty of master's degree training.

5.4 The medical education institution **must** have clearly defined duties and responsibilities of the academic advisor.

5.5 Academic advisors must consult regularly their master's students.

5.6 Master's student must be trained on the basis of approved individual work plan, which is prepared under the guidance of the academic advisor, which should be reflected in the approved reports heard at the meeting of the department (departments) for each half-year.

## 6. STANDARDS «DISSERTATION»

6.1 The dissertation topic and academic advisor of a master's student **must** be approved after enrolling in master's programme.

6.2 Subject of the thesis **must** be evaluated and approved by a panel of independent experts (examiners) by the external evaluation of the written description, or on the basis of the presentation of the research work.

6.3 Master's programme **must** be completed by preparing and defending a dissertation, which is an indicator of the formation of student's competence in accordance with the educational programme.

6.4 Research work in the scientific and pedagogical master's degree **must**:

- *correspond to the basic problems of the specialty in which the master's dissertation is being defended;*

- *be relevant, contain scientific novelty and practical significance;*

- *be based on modern theoretical, methodological and technological achievements of science and practice;*

- *be prepared using modern methods of research;*

*- include research (methodological and practical) sections on the main defending positions;*

*- be based on best international practices in the relevant field of knowledge.*

6.5 Experimental research in the specialised master's degree **must:**

*- correspond to the basic problems of the specialty in which the master's dissertation is being defended;*

*- be based on modern achievements of science, technology and production, and contain specific practical recommendations, independent solutions to management problems;*

*- be performed with the use of advanced information technologies;*

*- contain experimental and research (methodological and practical) sections on the main defending positions.*

6.6 The medical education institution **must** define the term for dissertation preparation, limited to 1-2 year period.

6.7 The dissertation **must** be written by a master's student on its own, contain a set of scientific results and regulations put forward by the author for the public defense.

6.8 Structure of the dissertation **must** include a review of the literature pertaining to the subject of research, objectives and tasks of research, research methodology, results, discussion, discussion, conclusions and future prospects of the study.

6.9 The results of the dissertation **must** be made available to interested parties (master's students, academic advisors, employees of the institution where carried out the thesis, to the researchers carrying out research work in the same field, and others categories of stakeholders), i.e. be published if copyright or other reasons do not prevent this.

6.10 The dissertation **must** be accompanied by at least one publication and/or one presentation at a scientific and practical conference.

6.11 The medical education institution **must** provide a discussion of the dissertation of a master's student at the department(s) meeting, where the dissertation is carried out.


# 7. STANDARDS «EVALUATION OF DISSERTATIONS»

7.1 The medical education institution **must** determine, approve and publish the principles, methods and practices used to assess master's students, including the evaluation criteria of scientific paper.

7.2 The final evaluation and approval of the dissertation **must** be implemented by the State Attestation Commission (SAC) for the defense of master's dissertations.

7.3 The dissertation defense **must** be carried out in medical education

institution, where master's student studies.

7.4 The dissertation **must** be reviewed (external) in a similar medical educational organisation by a person with a Candidate of Science degree or PhD-doctor degree in the field of the dissertation being defended.

7.5 The dissertation defense **must** include both the preparation of a written version and subsequent verbal defense.

7.6 The dissertation defense **must** be open to the public.

7.7 Academic master's degree **must** be awarded by the medical education institution on the basis of the SAC decision, which evaluates dissertation (Standards "Dissertation") and a verbal defense.

## 8. STANDARDS «GOVERNANCE AND ADMINISTRATION»
### 8.1 Programme Management

8.1.1 Management of the medical education institution **must** be effective and ensure the improvement of the educational programme.

8.1.2 The medical education institution **must** define the structural unit responsible for the implementation of educational programmes of postgraduate education and the achievement of the final learning outcomes.

8.1.3 The structural unit responsible for educational programmes of postgraduate education **must** have the authority for planning and implementing the curriculum including the allocation of the granted resources for planning and implementing methods of teaching and learning, assessment of master's students, evaluation of educational programmes and courses.

8.1.4 The medical education institution **must** ensure the interaction of master's students with the management in the matters of design, governance and evaluation of master's programmes.

8.1.5 The medical education institution **should** encourage and facilitate the involvement of master's students in the process of developing educational programmes for the preparation of master's students.

8.1.6 The structural unit responsible for educational programmes of postgraduate education **must** ensure transparency of the work of governance and its decisions which are published in newsletters, posted on the HEI's website or included in the minutes for review and execution.

8.1.7 The medical education institution **should** plan and implement innovations in educational programmes through a structural unit responsible for educational programmes.

8.1.8 The medical education institution **should** in its advisory body responsible for educational programmes of postgraduate education include representatives of other stakeholders, including other participants in the educational process, representation of teaching hospitals and other clinical facilities, representatives of graduates of the medical education institutions,

other health/pharmacy professions, who are involved in the educational process, or other faculty members of the university.

8.1.9 The medical education institution **should** ensure that the structural unit responsible for curriculum of postgraduate education:

- takes into account the environment in which graduates will be expected to work, and modify the programme accordingly;

- considers the modification of the educational programme based on feedback from the community and society as a whole.

8.1.10 The medical education institution **should** ensure that the process of renewal and restructuring leads to an improvement of the organisational structure and principles of master's programme governance to ensure the efficient operation and (in the future) to meet the interests of different stakeholder groups in terms of changing circumstances and needs.

### 8.2 Academic Leadership

8.2.1 The medical education institution **must** clearly define the responsibilities of its academic leadership for development and management of the medical educational programme

8.2.2 The medical education institution **must** periodically evaluate its academic leadership in relation to achievement of its mission and intended educational outcomes.

### 8.3 Educational Budget and Resource Allocation

8.3.1 The medical education institution **must:**

- have a clear line of responsibility and authority for resourcing the curriculum, including a dedicated educational budget;

- allocate the resources necessary for the implementation of the curriculum and distribute the educational resources in relation to educational needs.

8.3.2 The financial system of the medical education institution **must** be based on the principals of efficiency, effectiveness, priority, transparency, accountability, separation and autonomy of all levels of budgeting.

8.3.3 Financial and administrative policy **must** be aimed at improving the quality of the educational programme.

### 8.4 Administrative Staff and Management

8.4.1 The medical education institution **must** have an administrative and academic staff, including their number and composition in accordance with the qualifications, that is appropriate to:

- ensure the implementation of its educational programme and related activities;

- ensure good management and resource deployment.

8.4.2 The medical education institution **should** develop and implement an

internal programme for management quality assurance, including consideration of the need for improvements and regularly review and analyse the management.

8.4.3 The medical education institution **must** ensure the implementation of master's programmes in accordance with the quality management system certified by independent organisations.

### 8.5 Interaction with Health Sector

8.5.1 The medical education institution **must** have constructive interaction with the health and health related sectors of society and government including exchange of information, collaboration, and organisational initiatives that facilitate provision of specialists with the qualifications needed by society.

8.5.2 The medical education institution **must** ensure operational connection between the educational programme and the subsequent stages of professional training.

8.5.3 The medical education institution **should** formalise the collaboration with partners in the health sector that means entering into formal agreements, stating content and forms of collaboration, and/or establishing joint contact and coordination committees as well as joint projects.

### 9. STANDARDS «CONTINUOUS IMPROVEMENT»

The medical education institution **must** as a dynamic and socially accountable institution:

9.1 initiate procedures for regularly reviewing and updating the process, structure, content, outcomes/competencies, assessment and learning environment of the programme, document and rectify deficiencies;

9.2 allocate resources for continuous improvement.

The medical education institution **should**:

9.3 base the process of renewal on prospective studies and analyses and on results of local studying and evaluation and the medical education literature on postgraduate medical education;

9.4 ensure that the process of renewal and restructuring leads to the revision of its policies and practices in accordance with past experience, present activities and future perspectives.

The medical education institution **should** address the following issues in its process of renewal/continuous improvement:

9.5 adaptation of mission statement and outcomes of postgraduate education to the scientific, socioeconomic and cultural development of the society for the future;

9.6 modification of the intended educational outcomes of postgraduate education in the selected health care field in accordance with the documented

needs of the environment. Changes may include adjusting the structure and content of the educational programme, principles of active learning. The adjustment will ensure, along with the elimination of obsolete ones, the assimilation of new relevant knowledge, concepts, methods and concepts based on new advances in the basic biomedical, clinical, behavioral and social sciences, taking into account changes in demographic situation and population structure on public health issues, as well as changes socio-economic and cultural conditions;

9.7 development of assessment principles, and the methods and the number of examinations according to changes in intended educational outcomes and instructional methods;

9.8 adaptation of master's student recruitment policy and selection methods to changing expectations and circumstances, human resource needs, changes in the postgraduate education system and the requirements of the educational programme;

9.9 adaptation of academic staff recruitment and development policy according to changing needs;

9.10 refinement of the process of programme monitoring and evaluation.

9.11 The medical education institution must ensure that the improvement of the organisational structure and management principles to cope with changing circumstances and needs and, over time, accommodating the interests of the different groups of stakeholders.

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