

**INDEPENDENT AGENCY FOR  
ACCREDITATION AND RATING**

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# **STANDARDS**

**OF THE SPECIALIZED ACCREDITATION  
OF THE MASTER'S EDUCATIONAL  
PROGRAM ON SPECIALTIES:**

**6M110100 - «Medicine»**

**6M074800 - «Technology of pharmaceutical production»**

**6M110400 - «Pharmacy**

**6M110200 - «Public Health Care»**

**6M110500 - «Medical and preventative care»**

**6M050700 - «Management»**

**6M110300 - «Nursing care»**

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**Astana 2014**

## FOREWORD

**1. ELABORATED AND SUBMITTED** – by the “Independent Agency for Accreditation and Rating” Non-profit establishment

**2. APPROVED** by the Order of the “Independent Agency for Accreditation and Rating” NPU Director and **ENACTED** by the Order No. 23-14-od dated 26.06. 2014.

**3. AGREED** with the Ministry for Public Health and Social Development, Ministry of Education and Science of the Republic of Kazakhstan, Committee of Technical Regulation and Metrology of the Ministry of Industry and New Technology of the Republic of Kazakhstan.

**4.** Provisions of the Republic of Kazakhstan Law “Concerning education” (as subsequently amended as of 16/05/2014) are implemented in this standard dated 27/07/2007 No.319-III

## **5. PUT IN PLACE FOR THE FIRST TIME**

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## STANDARDS OF THE SPECIALIZED ACCREDITATION

### 1. Standard “General Provisions”

#### 1.1. Scope

1.1.1 This standard defines the regulatory requirements for the basic provisions of standards of the specialized accreditation of master’s educational programs of medical education institution in the following specialties:

- 6M110100 - «Medicine»
- 6M074800 - «Technology of pharmaceutical production»
- 6M110400 - «Pharmacy»
- 6M110200 - «Public Health Care»
- 6M110500 - «Medical and preventative care»
- 6M110300 - «Nursing care»
- 6M050700 - «Management».

1.1.2 This standard is applied in the procedure of accreditation of Master’s educational programs above of the medical education institution institution regardless of their status, business legal structure, form of ownership and departmental subordination.

1.1.3 This standard may also be used:

- a) by the medical education institution for internal self-evaluation and external evaluation of the educational program;
- b) to develop an appropriate regulatory documentation.

#### 1.2 Normative References

1.2.1 This standard refers to the following regulatory documents:

1. The State Program for Development of Education of Republic of Kazakhstan for 2011-2020. Presidential Decree of December 7, 2010 № 1118.

2. Law “On Technical Regulation” dated November 9, 2004 № 603-II ZRK (as amended on 05.16.2014).

3. The Law of the Republic of Kazakhstan “On Education” dated June 27, 2007 № 319-III (as amended as of 16.05.2014).

4. Law “On accreditation of conformity assessment” on July 5, 2008 № 61-IV (as amended as of 16.05.2014).

5. State Coding System of Republic of Kazakhstan. Coding system of higher and postgraduate education of the Republic of Kazakhstan. CS RK 08-2008.

6. Rules of the organization of educational process on credit technology. Order of the Minister of Education and Science of the Republic of Kazakhstan dated April 20, 2011 № 152.

7. SCES RK “Postgraduate education. Section 1. Master’s program. General Provisions”, approved by the Government of the Republic of Kazakhstan dated August 23, 2012 № 1080.

8. On the establishment of the National Register of accreditation bodies, accredited institutions and educational programs, approved by order of the Minister of Education and Science of the Republic of Kazakhstan dated December 30, 2011 № 556.

9. Standards “Institutional accreditation of medical higher education institutions” approved by order of the Director NE “Independent Agency for Accreditation and Rating” on November 26, 2013 № 18-13 -OD.

### **1.3 Terms and definitions**

In this standard applies the terms and definitions in accordance with the Law of the Republic of Kazakhstan “On Education” of 27.07.2007, № 319-III (as amended on 16.05.2014), State educational standards of postgraduate education. Section 1. Master’s program, approved by the Government of the Republic of Kazakhstan dated August 23, 2012 № 1080:

1.3.1 Master’s program - professional academic program of postgraduate education, aimed at training of scientific, pedagogical and administrative personnel with the award of the academic Master’s degree in the relevant specialty.

1.3.2 The scientific and pedagogical Master’s program - implementation of professional academic programs of postgraduate education in the training of scientific and teaching staff for the system of higher and postgraduate education and scientific field, having in-depth scientific and pedagogical training.

1.3.3 Master’s student - a person enrolled in the master's program.

1.3.4. Master's thesis – a final work, which is a generalization of the results of independent scientific research by Master’s student of the one of the pressing issues in a particular specialty of the corresponding branch of science.

1.3.5 Master – an academic degree awarded to persons who have mastered the Master’s educational programs and publicly defended its master's thesis.

1.3.6 Accreditation of educational institution - recognition procedure by accreditation agency the compliance of educational services with established standards (regulations) of accreditation in order to provide objective information about the quality and to confirm the existence of effective mechanisms for its improvement;

1.3.7 *Accreditation agencies* – legal entities that develop standards (regulations) and conduct accreditation of education institutions based on the standards (regulations) developed by them;

1.3.8 *Institutional accreditation* – evaluation of education organization’s activity on the qualitative representation of educational programs according to the declared status;

1.3.9 International Accreditation - accreditation of higher education institution or special, educational professional programs by recognized accreditation agency in abroad;

1.3.10 National accreditation - accreditation of higher education institution or educational programs by national accreditation agencies;

1.3.11 Specialized Accreditation - evaluation of the quality of special, educational programs implemented by education institution;

1.3.12 *Standards (regulations) of accreditation* – documents of accreditation agency establishing requirements for the accreditation procedure.

1.3.13 Dublin descriptors - description of the level and scope of knowledge, skills and competencies, acquired by trainees upon completion of the educational program at each level (stage) of the higher and postgraduate education, are based on learning outcomes, competences formed, as well as the total amount of ECTS credit units.

#### **1.4 Designations and abbreviations**

This standard is used in accordance with the reduction referred to in paragraph 2 regulations.

Furthermore, in this standard, the following symbols and abbreviations are used:

HEI - Higher Education Institution;

MH RK – The Ministry of Health of the Republic of Kazakhstan;

MES RK – The Ministry of Education and Science of the Republic of Kazakhstan;

CPD – continuing professional development;

CME – continuing medical education;

ATS – academic teaching staff;

MM – Mass media;

SWOT- analysis: analysis of strengths and weaknesses, opportunities and threats of organization: S – strengths, W – weaknesses, O – opportunities, T – threats;

SAC - State Attestation Commission.

#### **1.5 General Provisions**

1.5.1 Specialized accreditation of the master’s programs is carried out under these standards, which include: standard “Mission and education outcomes”, standard “Scientific research environment and educational resources”, standard “Policy and criteria of admission”, standard “Master's Program”, the standard “Academic advising”, standard “Thesis”, standard “Evaluation of thesis”, standard “Governance and administration”.

1.5.2 Standards for accreditation of specialized master's programs are developed based on international standards of the World Federation for Medical Education Institution (WFME), the Association of Medical Schools in Europe (AMSE) and the European model of accreditation of educational programs in the field of biomedicine and health sciences (ORPHEUS), with the introduction of the national peculiarities of the Health and Medical Education System of the Republic of Kazakhstan.

1.5.3 There are the following forms of accreditation:

1) by the structure

1.5.3.1 institutional accreditation;

1.5.3.2 specialized accreditation;

2) by territorial recognition

1.5.3.3 national accreditation;

1.5.3.4 international accreditation.

1.5.4 The decision on accreditation shall be taken by the Accreditation Council

1.5.5 The composition of the Accreditation Council consists of representatives of the MES RK, MH RK, medical education institutions, research organizations, health care institutions, professional associations, employers, public, master's students and international experts.

### **1.6 Main objectives of specialized accreditation standards implementation**

1.6.1 Major objectives of designated accreditation standards implementation are:

1.6.1.1 implementation of accreditation model, harmonizable with international practice of education quality assurance;

1.6.1.2 assessment of professional and education programs quality for improving competitiveness of the national system of higher education;

1.6.1.3 encouragement of quality culture evolution in the higher educational institutions, medical educational institutions, scientific organizations;

1.6.1.4 assistance to improvement and continuous upgrading of education programs of medical educational organizations in compliance with the requirements of rapidly changing environment;

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

1.6.1.6 use of innovations and scientific investigations;

1.6.1.7 public announcement and distribution of information on accreditation results for education masters program of the medical education institutions.

### **1.7 Principles of specialized accreditation standards establishing**

1.7.1 Presented standards for quality assurance for education programs of higher vocational education are based on the following principles:

1.7.1.1 voluntariness – procedure of education programs accreditation is performed on a voluntary basis;

1.7.1.2 honesty and transparency – internal and external assessment are performed maximally honestly and transparently, information accessibility for all participants of performed accreditation process;

1.7.1.3 objectivity and independence – internal and external assessment are performed reasonably, independent from the third parties (government agencies, HEI administration and public opinion) and obtained results;

1.7.1.4 responsibility of medical educational organizations – primary responsibility for higher education quality is attached to medical educational organizations

1.7.1.5 confidentiality – information submitted by HEI is applied by the accreditation agency confidentially;



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

1.7.3 Public information countrywide and abroad on accredited education programs is performed in mass media, incl. provision of information on web-site of accreditation agency.

### **1.8 Stages and procedures of specialized accreditation performance**

1.8.1 Accreditation procedure involves the following stages:

1.8.1.1 request of medical educational institution to the Independent agency for accreditation and rating;

1.8.1.2 submission by the medical educational institution of brief description of activity thereof to Independent agency for accreditation and rating;

1.8.1.3 signing of bilateral contract between the Independent agency for accreditation and rating and medical educational institution on carrying out of accreditation with specification of procedure cost and time for performance;

1.8.1.4 procedure for self-assessment of education program conducted by the medical educational organization /scientific organization which is to be completed by drawing up of report on self-assessment of education program and meeting the requirements according to standards and criteria specified by this standard;

1.8.1.5 submission of report on self-assessment of education program of medical educational institution to Independent agency for accreditation and rating;

1.8.1.6 consideration of report on self-assessment of medical educational organization to Independent agency for accreditation and rating;

1.8.1.7 procedure of external assessment – visit of medical educational organization/HEI by the expert commission which performs the external review and assessment and writes a report and recommendations for Accreditation Council;

1.8.1.8 preparation of materials for accreditation of education program of medical educational institution by the Accreditation Council;

1.8.1.9 examination of issues of accreditation for education program of medical educational institution by the Accreditation Council;

1.8.1.10 acceptance of final decision by Accreditation Council based on recommendations of accreditation agency;

1.8.1.11 publication of concise summary on accreditation of education program of medical educational institution on the web-site of accreditation agency in case of favorable decision;

1.8.1.12 follow-up procedures for control of rectifying deficiencies undertakes by

the medical educational institution in the light of all recommendations contained in the report of external expert commission.

1.8.2 Procedure of HEI accreditation is performed according to the Republic of Kazakhstan Law “Concerning education” dated July 27, 2007 No. 319-III (as subsequently amended as of 16/05/2014) at the expense of financial resources of medical educational institutions upon the organization application.

1.8.3 During carrying out by medical educational institution of self-assessment of education program thereof the accreditation agency renders the advisory services to educational organization upon the preliminary agreement.

1.8.4 After completion of self-assessment procedure for education program the accredited medical educational institution (no less than 2 months before expected expert commission visit) sends to accreditation agency 6 copies of report for self-assessment of education program (in Kazakh and/or Russian (English)), which is carefully studied by all members of expert group prior to visit of medical educational organization. Whereat the expert commission attends the medical educational organization for confidence estimation of self-assessment findings.

1.8.5 Visit of medical educational organization is performed within 2-3 days by experts group, recommended by HEI, scientific organizations, public associations and employers, nominated and certified by accreditation agency. Regulatory activity of experts group work in the medical educational institution is performed according to the standard and guidance for external assessment during the visit of medical educational organization approved by the accreditation agency.

1.8.6 Writing of report on visit of medical educational institution is performed by external experts to accreditation agency (no less than 5 days) and report results are sent by accreditation agency to medical educational institution.

1.8.7 Acceptance of decision by the Accreditation Council is performed on basis of report for self-assessment of education program, final report of external expert commission of the accreditation agency based on analysis of documents presented above.

Report of expert commission and accreditation agency recommendations are mandatory condition for acceptance of decision by Accreditation Council.

1.8.8 Accreditation Council accepts the following decision:

1.8.8.1 1 year – in compliance with the criteria in General, but with some gaps and opportunities for improvement;

1.8.8.2 3 years – in case of positive results overall, but with some minor gaps and opportunities for improvement;

1.8.8.3 5 years – in case of positive results overall;

1.8.8.4 7 years – in case of positive results during reaccreditation of EP.

1.8.8.5 deny the accreditation.

1.8.9 After acceptance of favorable decision on accreditation the accreditation agency issues to the medical educational organization the accreditation certificate for a period of five years.

1.8.10 Hereafter the decision on accreditation of education program of medical educational organization is to be sent to the MES RoK for incorporation to the National register 3 and posted on web site of accreditation agency.

1.8.11 In case of acceptance of negative decision the educational institution is entitled to appeal against the Accreditation Council decision according to the procedure established by the Guidance for carrying out of self-assessment as well as legislation of the Republic of Kazakhstan.

1.8.12. Accreditation agency is entitled to direct the expert commission for control of rectifying deficiencies mentioned by the external expert commission in the report during the visit of medical educational organization.

1.8.13 Medical educational organization shall pass the re-accreditation in specified period of time for confirmation of accredited education program status and extension of accreditation term.

## **1.9 Follow-up procedures**

1.9.1 In case of failure to meet the requirements applicable by accreditation agency with regard to educational organization the Accreditation Council is entitled to accept the following decisions:

- Suspend the accreditation effect for education program,
- Recall the accreditation of education program of medical educational organization by removing from the list of National register 3, that may result in cancellation of all accreditation results previously achieved and commitment to pass all stages of accreditation once again in case of expression by applicant of willingness to be accredited again.

1.9.2 In case the Accreditation Council IAAR positive decision Organization of Education is developing a plan to implement the recommendations of the EEC IAAR. The plan approved by the director educational organization and the director of the IAAR. The plan is the basis for post- accreditation monitoring.

1.9.3 Post- accreditation monitoring the activities of the organization of education is carried out as follows:

|  |                     |                         |                         |
|--|---------------------|-------------------------|-------------------------|
| The duration of the accreditation period                                       | 3 years             | 5years                  | 7 years                 |
| The period of presenting the interim report and carrying out the expert visit. | once every 1,5 year | 2 times every two years | 3 times every two years |

In case of accreditation of the educational program for a period of 1 year, the governing body of the educational program within this period decides on re-accreditation.

### **1.10 Procedure for introduction of amendments and additions to designated accreditation standards**

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

1.10.2 Introduction of amendments and additions to the standard is performed by Independent agency for accreditation and rating.

1.10.3 In case of initiating of amendments and additions to current standard by educational organizations and other interested organizations the suggestions and remarks are to be sent by them to the Independent agency for accreditation and rating.

1.10.4 Independent Agency for Accreditation and Rating studies and carries out examination of suggestions and remarks obtained from initiators with respect to justification and expediency.

1.10.5 Amendments and additions to the current accreditation standard after acceptance thereof are approved by the Order of the Independent Agency for Accreditation and Rating Director redrafted as amended or in the form of brochure-insert to the effective standard.

## **2. Standard ‘MISSION AND EDUCATION OUTCOMES’**

### **2.1 Mission definition**

2.1.1 Medical education institution **must** define its mission and bring it to the attention of stakeholders and the health sector.

2.1.2 Medical education institution **must** ensure that the key stakeholders are involved in the development (formulation) of a mission.

2.1.3 The mission statement **must** contain objectives and educational strategy of the program, allowing to prepare competent researchers at postgraduate medical education.

2.1.3 Medical education institution **must** ensure that the mission statement includes issues of public health, the needs of the health care system and other aspects of social responsibility.

2.1.4 Medical education institution **must** have a strategic plan for the development of the educational program corresponding to a stated mission, goals of medical education institution, including the issues of improving the quality of master programs and approved on a consultative and advisory council of medical education institution.

2.1.5 Medical education institution **must** systematically collect, store and analyze information about the quality of the implementation of master programs; assess the strengths and weaknesses (SWOT-analysis), based on which university presidency (provostship office) in conjunction with the consultative and advisory council must determine the policy and develop strategic and tactical plans.

2.1.6 Mission and goals of medical education institution/educational program:

- **must** comply with the available resources, opportunities and market requirements;
- ways to support them **must** be identified;
- an access to information about the mission, goals of medical education institution **must** be ensured to the public (information in the media, on the website of the HEI).

2.1.7 Mission and goals of medical education institution/educational program **must** be approved on a consultative and advisory council.

## **2.2 The institutional autonomy and academic freedom**

2.2.1 An institution implementing Master's educational programs **must** have institutional autonomy to develop and implement policy that the faculty and administration are responsible for, particularly in relation to:

- the development of educational program;
- use of the allocated resources necessary for the implementation of the educational program.

Medical education institution *should* ensure the academic freedom to its employees and master's students:

2.2.2 in respect of the current educational program, which will allow reliance on the various points of view in the description and analysis of issues in medicine and pharmacy;

2.2.3 in the opportunities to use the results of new research to improve the study of specific disciplines/issues without the extension of the educational program.

## **2.3 Outcomes**

2.3.1 Medical education institution **must** identify the expected education outcomes that master's students must demonstrate after completion of the master's program.

2.3.2 Learning master's program 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.

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

2.3.4 Medical education institution *should* ensure that the process of renewal and restructuring leads to a modification of education outcomes of graduates in accordance with the responsibilities incumbent upon the graduates after the master's program completion.

### **3. Standard “SCIENTIFIC RESEARCH ENVIRONMENT AND EDUCATIONAL RESOURCES”**

#### **3.1 Scientific research environment**

3.1.1 The success of the individual master programs **must** be ensured by the arrangement of a strong and effective research environment.

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

3.1.2 the publication of research results (number of publications, impact factor, etc.) in major of Master program in medical education institution;

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

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

3.1.5 national and international co-operation with research teams of medical organizations, universities, research centers.

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

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

3.1.8 Implementation of master programs **must** be conducted in compliance with the conditions of mutual respect, planning and shared responsibility of the academic advisor and a master's student.

3.1.9 Medical education institution **should** study the possibilities of joint master programs with the award of Master's degrees from both universities and joint study guide to support cooperation between higher education institutions.

3.1.10 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 program.

3.1.11 Medical education institution **should**:

3.1.12 provide sufficient autonomy in resource allocation, including a decent remuneration of teachers in order to achieve the education outcomes;

3.1.13 in the allocation of resources, take into account the scientific achievements in the field of medicine and public health problems and their needs.

#### **3.2 Facilities and resources**

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

3.2.1 classrooms, laboratories and equipment must be modern and comply with the goals and objectives of master program;

3.2.2 master students **must** be provided with conditions for independent learning and research;

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

3.2.4 Medical education institution **must** have adequate resources for the proper implementation of master program.

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

- admission of master students,
- providing training in master's program,
- implementation of the thesis,
- academic advising,
- advising master students,
- consideration, review and evaluation of the thesis,
- award of academic master's degree,
- operating costs,
- the cost of participation in training courses, international scientific conferences,
- tuition in master programs in establishments where it is practiced.
- resources also include a master's student scholarship, but the amount of payment may vary.

3.2.6 Resource policy **must** be aimed at support and ensuring the continuous professional development of teachers of master programs.

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

3.2.8 Medical education institution **should** improve the education environment for master students through regular renewal, expanding and strengthening the facilities and resources, which must match the development in the practice of teaching.

### **3.3. Information Technology**

3.3.1 Medical education institution **must** have the information support meeting the goals and objectives of master program.

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

3.3.4 Master students **must** have timely and easy access to library resources.

3.3.5 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.

3.3.6 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.

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

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

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

3.3.10 In medical education institution there **must** be constant renewal, improving and expanding of the base of information resources.

3.3.11 Medical education institution **must** open and constantly update its website's section on the Master's Degree programs containing the following information:

- structure and the staff of the master program, responsibilities of a head of department and staff;
- admission policy, including clear rules on the selection process of master students;
- a list of master programs;
- structure, duration and content of the master programs;
- criteria for the appointment of an academic advisor, outlining the characteristics, responsibilities and qualifications of an academic advisor;
- methods used to assess the master students;
- criteria for execution and writing of a thesis;
- description of the procedures for the thesis defense;
- description of a work of the State Certification Commission for the master's thesis defense;
- program of quality assurance and regular evaluation of master programs;
- information about master students taking into account the year of study.

#### **4. Standard "POLICY AND CRITERIA OF ADMISSION"**

4.1 Medical education institution **must** define and implement a policy of admission, including a clearly defined position on the process of selection of master students.

4.2 Medical education institution **must** establish a relationship between selection of master students and mission of medical education institution, educational program and desired qualities of graduates.

4.3 Candidates for the Master's program **must** master professional higher education programs (basic medical/pharmaceutical/chemical, higher professional or postgraduate education, for specialty "Nursing care" - higher nursing education).

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

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

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

4.7 Medical education institution **should** ensure that the process of renewal and restructuring leads to adaptation of admission policy of master students subject to changing expectations and circumstances, human resource needs, changes in the system of postgraduate education and the needs of the program.



## **5. Standard “MASTER PROGRAM”**

### **5.1 The model of educational program, teaching methods and structure**

5.1.1 Medical education institution **must** define a model educational program that includes an integrated model based on disciplines, organ systems, clinical problems and diseases on the modules or spiral design.

5.1.2 Medical education institution **must** define the purpose and objectives of the master's program, which are focused on the education outcome.

5.1.3 Master's program **must** be based on the performance of the original study, courses, and other types of work that require analytical and critical thinking.

5.1.4 Medical education institution **must** ensure that the educational program is implemented in accordance with the principles of equality.

5.1.5 Medical education institution **must** ensure that the master student fulfills its obligations in respect of doctors, teachers, patients and their families in accordance with the Code of Conduct/Code of honor.

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

5.1.7 Master's program **must** be carried out under the academic advising (standard “Academic advising”).

5.1.8 Medical education institution **must** define the teaching and learning methods used.

5.1.9 Master's program **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 students - different kinds of practices, professional training;
- research work, including the implementation of a master thesis for the scientific and pedagogical master program;
- experimental and research work, including the implementation of a thesis for the Master's subject;
- intermediate and final certification.

5.1.10 Teaching practice (in accordance with the type of Master program) **must** ensure to the master students the formation of practical skills and methods of teaching.

5.1.11 Research practice **must** provide a master student with the knowledge of the latest theoretical, methodological and technological achievements of domestic and foreign science, modern methods of scientific research, processing and interpretation of experimental data.

5.1.12 Practical training of a master student **must** provide it with consolidation of the theoretical knowledge acquired during the training, the acquisition of practical skills, competencies and professional experience in the learning specialty, as well as the development of best practices.

5.1.13 Medical education institution **must** design an appeal mechanism, which allows master student to revise the decision regarding their programs and evaluation of their theses.

## **5.2 Evaluation of master program**

5.2.1 Medical education institution **must** have a program to monitor processes and results, including the routine collection of data on key aspects of the educational program. The purpose of monitoring is to ensure the quality of the educational process, the identification of areas requiring intervention.

5.2.2 Medical education institution **must** make regular assessments of the quality of the program, including feedback from the academic advisors and master students.

5.2.3 Medical education institution **must** systematically collect, analyze and provide teachers and master student a feedback, which includes information on the process and products of the educational program, and also include information on malpractice or misconduct of teachers or master students.

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

5.2.4 adaptation of educational program model and methodological approaches in training to ensure their appropriateness and relevance;

5.2.5 adjustment of program 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.

5.2.6 Medical education institution organizations **should** use the results of feedback to improve the educational program.

## **5.3 Stakeholder Involvement**

5.3.1 medical education institution **must** involve faculty and master students, its administration and management in its monitoring program and evaluation activities of the educational program.

5.3.2 Medical education institution **should** involve in the process of assessing other stakeholders, including representatives of the academic and administrative staff, members of the public, the competent authorities of the education and health professional organizations.

5.3.3 Medical education institution **should** give access to the results of the evaluation of the educational program.

5.3.4 Medical education institution **should** ensure that the process of renewal and restructuring leads to an improvement of the monitoring and evaluation of the program in accordance with changes in the education outcomes and teaching and learning methods.

## **6. Standard “ACADEMIC ADVISING”**

6.1 Medical education institution **must** appoint an academic advisor for each master student, and, where appropriate, co-advisor as well to cover all aspects of the program.

6.2 Academic advisor and a master student research topic **must** be approved by the decision of the Academic Council and the order of the rector of medical education institution.

6.3 Academic advisor of a master student **must** have a degree and is actively engaged in research in the field of science (in the master specialty).

6.4 Medical education institution **must** have clearly defined duties and responsibilities of the academic advisor.

6.5 Academic advisors **must** consult regularly their master students.

6.6 Master student **must** be trained on the basis of individual work plan, which is prepared under the guidance of the academic advisor.

- 6.7 Medical education institution *should* plan and organize training courses for academic advisor in policy of implementing the master programs, the main duties of academic advisors.

## **7. Standard “THESIS RESEARCH”**

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7.1 Thesis subject and academic supervisor of a master student **must** be approved after enrolling in master program.

7.2 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.

7.3 Master's Program **must** be completed by preparing and defending a thesis, which is an indicator of the formation of student's competence in accordance with the educational program.

7.4 Research work in a scientific and pedagogical magistracy **must**:

- comply with the basic problems of specialty in which the master's thesis is 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 protective position;
- be based on best international practices in the relevant field of knowledge.

7.5 Experimental research in master subject **must**:

- comply with the basic problems of specialty in which the master's thesis is defended;
- be based on the latest achievements of science, technology and production, and contain specific practical recommendations, judgment calls of management tasks;
- be performed with the use of advanced information technologies;

- include experimental research (methodological and practical) sections on the main protective position.

7.6 Medical education institution **must** define the term for thesis preparation, limited to 1-2 year period.

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

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

7.9 The results of the thesis **must be** made available to interested parties (master students, academic advisors, employees of the institution which 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.

7.10 The thesis **must** be accompanied by at least one publication and/or a performance at the scientific conference.

7.11 Medical education institution **must** provide a discussion of the thesis of a master student at the department(s) meeting, where the thesis is carried out.

## **8. Standard “EVALUATION OF THESIS RESEARCH”**

8.1 Medical education institution **must** determine, approve and publish the principles, methods and practices used to assess master students, including the evaluation criteria of scientific paper.

8.2 The final evaluation and approval of the thesis research **must** be implemented by the State Attestation Commission (SAC) for the defense of master's theses.

8.3 The thesis defense **must** be carried out in medical education institution, where master student studies.

8.4 Thesis **must** pass review.

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

8.6 The thesis defense **must** be open to the public.

8.7 Academic Master's degree **must** be awarded by the medical education institution on the basis of the SAC decision, which evaluates thesis (standard “Thesis”) and a verbal defense.

## **9. Standard “GOVERNANCE AND ADMINISTRATION”**

### **9.1 Management of the program**

9.1.1 Management of medical education institution **must** be effective and ensure the improvement of the educational program.

9.1.2 Medical education institution **must** identify the structural unit responsible for educational programs and learning outcome.

9.1.3 The structural unit responsible for educational programs **must** have the authority to plan and implement an educational program, including the allocation of

resources allocated for the planning and implementation of teaching and learning methods, evaluation of master students, evaluation of educational programs and courses.

9.1.4 Medical education institution **must** ensure the interaction of master students with the management in the matters of design, governance and evaluation of master programs.

9.1.5 Medical education institution **should** encourage and assist the involvement of master students in the process of developing educational programs to train master students.

9.1.6 The structural unit responsible for educational programs **must** ensure transparency of the governance system and decisions being taken, which are published in the bulletins, posted on the website of the HEIs, included in the protocols for review and execution.

9.1.7 Medical education institution **should** plan and implement innovations in educational programs through a structural unit responsible for educational programs.

9.1.8 Medical education institution **should** include representatives from of other relevant stakeholders in the advisory body responsible for educational programs, including other members of the educational process, representatives from clinical facilities, graduates of medical education institutions, health care /pharmacy specialists involved in the learning process, or other faculty members of the university.

Medical education institution **should** ensure that the structural unit responsible for the educational program:

9.1.9 takes into account the environment in which graduates will be expected to work and accordingly modify the educational program.

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

9.1.11 medical education institution **must** periodically evaluate the academic advising regarding achieving its mission and outcomes.

9.1.12 Medical education institution **should** ensure that the process of renewal and restructuring leads to the improvement of the organizational structure and principles of master's program 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.

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## **9.2 Academic Leadership**

9.2.1 Medical education institution **must** clearly define the responsibilities of the academic leadership for the development and management of the educational program

9.2.2 Medical education institution **should** periodically evaluate the academic leadership on achieving its mission and learning outcomes.

## **9.3 The budget for training and allocation of resources**

Medical education institution **must**:

9.3.1 have clear range of responsibilities and powers to provide the educational program with the resources, including targeted training budget;

9.3.2 allocate the resources necessary to carry out educational programs and distribute educational resources in line with their needs.

9.3.3 The system of financing of medical education institution **must** be based on the principles of efficiency, effectiveness, priority, transparency, accountability, separation and independence of all budget levels.

9.3.4 Financial and administrative policy **must** be aimed at improving the quality of the educational program.

Medical education institution organizations **should**:

9.3.4 provide sufficient autonomy in the allocation of resources, including a decent remuneration of teachers in accordance with achieving the education outcomes;

9.3.5 in the allocation of resources take into account the scientific advances in the field of medicine and public health problems and needs thereof.

#### **9.4 The administrative staff and management**

Medical education institution **must** have an appropriate administrative and academic staff, including their number and composition in accordance with the qualifications to:

9.4.1 ensure the implementation of the educational program and related activities;

9.4.2 ensure the proper management and resource allocation.

9.4.3 Medical education institution **should** develop and implement an internal program of management quality assurance, including consideration of the needs to improve, and regularly review and analyze the management.

9.4.4 Medical education institution **must** ensure the implementation of master programs in accordance with the quality management system certified by independent organizations.

#### **9.5 Interaction with the health sector**

9.5.1 Medical education institution **must** have constructive interaction with the health sector, with adjacent sectors of health, society and government, including the exchange of information, cooperation and initiatives of the institution, which contributes to provision with the qualified specialists in accordance with the needs of society.

9.5.2 Medical education institution **must** ensure operational connection between the educational program and the subsequent stages of professional training.

9.5.3 Medical education institution should grant the official status to cooperation with partners in the health sector, which includes formal agreements with defining of the content and forms of cooperation and/or conclusion of cooperative contract and the establishment of a coordinating board and carrying out the joint activities.

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