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INDEPENDENT AGENCY FOR
ACCREDITATION AND RATING



WORLD FEDERATION FOR
MEDICAL EDUCATION

STANDARDS

OF PROGRAM ACCREDITATION
OF EDUCATIONAL PROGRAMS
OF DOCTORATE (PhD)



Astana 2016

INDEPENDENT AGENCY FOR ACREDITATION AND RATING

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OF PROGRAM ACCREDITATION
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GENERAL PROVISIONS

Astana city, 2016

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 October 17, 2016 no. 39-16-1-OD.

3. This standard implements the norms of the Law of the Kyrgyz Republic "On Education" as of April 30, 2003 No. 92.

4. INITIALLY INTRODUCED

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STANDARDS OF PROGRAM ACCREDITATION

General provisions

1 Applicable scope

1.1 This standard defines the regulatory requirements to the general provisions of the program accreditation standards of educational programs of doctorate (PhD).

1.2 This standard is applied when conducting the accreditation procedure of the listed above educational programs of doctorate of medical educational organizations/scientific organizations, regardless of their status, organizational and legal form, forms of ownership and departmental subordination.

1.3 This standard can also be used:

- a) by medical educational organizations/scientific organizations for internal self-assessment and external evaluation of the educational program;
- b) for the development of relevant regulatory documentation.

2 Regulatory references

This standard contains references to the following regulatory documents:

2.1 The Law of the Kyrgyz Republic “On Education” as of April 30, 2003, No. 92 (as amended on January 16, 2015 No. 15).

2.2 The concept of development of education in the Kyrgyz Republic until 2020, approved by decree of the Government of the Kyrgyz Republic as of March 23, 2012 No. 201.

2.3 The strategy for the development of education in the Kyrgyz Republic for 2012–2020, approved by decree of the Government of the Kyrgyz Republic as of March 23, 2012 No. 201.

2.4 Decree of the Government of the Kyrgyz Republic as of July 31, 2007 No. 303 “On Postgraduate Medical Education in the Kyrgyz Republic”.

2.5 “Development Strategy for Postgraduate and Continuing Medical Education in the Kyrgyz Republic for 2014–2020” Order of the Ministry of Health of the Kyrgyz Republic No. 248 of 18.05.15.

2.6 Resolution of the Government of the Kyrgyz Republic as of September 29, 2015 No. 670 “On approval of acts on independent accreditation in the education system of the Kyrgyz Republic”.

3 Terms and definitions

In this standard terms and definitions are used in accordance with the Law of the Kyrgyz Republic “On Education”:

3.1 Doctorate: Professional educational program of postgraduate education, aimed at the training of scientific and pedagogical personnel with the award of the degree of the Doctor of Philosophy (PhD);

In accordance with the principles of the "Bologna process" doctoral programs form

the "third cycle" of higher education, after the cycles of specialty and master's degree. The main component of the third cycle is learning through original research.

3.2 Doctor of Philosophy (PhD): Higher academic degree awarded to persons who have mastered the professional doctoral curriculum for the relevant specialty;

3.3 Doctoral dissertation - a scientific work that is independent research, which develops theoretical concepts, the totality of which can be qualified as a new scientific achievement. Moreover, it contains a solved scientific problem that is of major socio-cultural or economic importance, or scientifically based technical, economic or technological solutions, the introduction of which makes a significant contribution to the development of the country's economy;

3.4 Accreditation - a procedure by an accreditation agency to evaluate the quality level of an educational organization as a whole or its individual educational programs, during which it is recognized that the educational organization or educational program meets certain criteria and standards;

3.5 Accreditation bodies - legal entities that develop standards (regulations) and conduct accreditation of an educational organization on the basis of the standards (regulations) developed by them;

3.6 Institutional accreditation - a procedure for the recognition by an accreditation agency of compliance with the level of quality of an educational organization as a whole to certain criteria, standards and its status;

3.7 International accreditation - accreditation of an educational organization or individual educational professional programs in a recognized foreign accreditation agency;

3.8 National accreditation - institutional accreditation of educational organizations or educational programs by national accreditation agencies;

3.9 Program accreditation - a procedure of assessment of the compliance of individual programs of an educational organization with certain criteria and standards;

3.10 Standards (regulations) of accreditation - documents of an accreditation body that establish the requirements for accreditation procedure.

4 Designations and abbreviations

In this standard, abbreviations are used in accordance with the regulatory documents specified in item 2.

In addition, the following designations and abbreviations are used in this standard:

HEI - higher education institution;

MH KR – Ministry of Health of the Kyrgyz Republic;

MES KR – Ministry of Education and Science of the Kyrgyz Republic;

KR – Kyrgyz Republic;

CPD - continuous professional development;

CME - continuous medical education;

PhD - Doctor of Philosophy

TS – teaching staff;

MM – mass media;

SWOT-analysis - analysis of strengths and weaknesses, problems and opportunities of the organization, abbreviation of English words: S (strengths) - strengths, W

(weaknesses) - weaknesses, O (opportunities) - favorable opportunities, T (threats) - threats.

5 General provisions

5.1 Program accreditation of doctoral program is carried out according to these standards, which include: “Mission and final learning outcomes”, standard “Research environment and educational resources”, standard “Doctoral program (PhD)”, standard “Policy and admission criteria”, standard “Scientific guidance”, standard “ Doctoral dissertation”, standard “Dissertation evaluation”, standard “Management and administration”.

5.2 Standards of program accreditation of a doctoral program are developed on the basis of the International Standards of the European Organization of PhD education in biomedicine and health sciences (ORPHEUS), the Association of Medical Schools of Europe (AMSE), the World Federation for Medical Education (WFME) with the introduction of national features of the healthcare system and medical education of the Kyrgyz Republic.

5.3 There are the following forms of accreditation:

1) by structure

5.3.1 institutional accreditation;

5.3.2 program accreditation;

2) by territorial recognition

5.3.3 national accreditation;

5.3.4 international accreditation.

5.4 The decision on accreditation is made by the Accreditation Council.

5.5 The Accreditation Council consists of representatives from MES KR, MH KR, medical educational organizations, scientific organizations, healthcare organizations, professional associations, employers, public representatives, doctoral students and international experts

6 Main objectives of implementing the standards of program accreditation

6.1 The main objectives of the implementation of standards of program accreditation are:

6.1.1 introduction of the accreditation model, harmonized with international practice of quality assurance of education;

6.1.2 assessment of the quality of vocational and educational programs to improve the competitiveness of national higher education system;

6.1.3 encouragement of the development of quality of culture in higher education institutions;

6.1.4 promotion of development and continuous improvement of the quality of educational programs of medical educational organizations/scientific organizations in accordance with the requirements of a rapidly changing external environment;

6.1.5 accounting and protection of the interests of society and the rights of consumers by providing reliable information about the quality of educational programs;

6.1.6 use of innovations and research;

6.1.7 public announcement and distribution of information on the results of the accreditation of a doctoral program of medical educational organizations.

7 Principles for the formation of standards for program accreditation

7.1 The presented standards for ensuring the quality of educational programs of higher professional education are based on the following principles:

7.1.1 voluntariness - the procedure for accreditation of educational programs is carried out on a voluntary basis;

7.1.2 honesty and transparency - internal and external evaluation is conducted in an extremely honest and transparent manner, ensuring the availability of information for all participants in the ongoing accreditation process;

7.1.3 objectivity and independence - internal and external evaluation is carried out objectively, regardless of third parties (state bodies, university administration and public opinion) and the obtained results;

7.1.4 responsibility of medical educational organizations - primary responsibility for the quality of higher education rests with medical educational organizations/scientific organizations;

7.1.5 confidentiality - the information provided by higher education institutions is used by the accreditation body in confidence;

7.2 The external evaluation is conducted independently from third parties (state bodies, medical educational organizations and public organizations).

7.3 Information awareness of the country public and abroad about accredited educational programs is carried out in the mass media, incl. the presentation of the information on the website of the accreditation body.

8 Stages and procedures for the implementation of program accreditation

8.1 The accreditation procedure includes the following steps:

8.1.1 application of a medical educational organization/scientific organization to the accreditation body;

8.1.2 medical educational organization/scientific organization presents a brief description of its activities to the accreditation body;

8.1.3 signing of a bilateral contract between the accreditation body and the medical educational organization/scientific organization on accreditation, indicating the cost of the procedure and deadlines;

8.1.4 self-assessment procedure of the educational program conducted by the medical educational organization/scientific organization, which ends with the preparation of a report on self-assessment of the educational program and on meeting the requirements of the standards and criteria defined by this standard;

8.1.5 submission of a report on self-assessment of the educational program of the medical educational organization/scientific organization to the accreditation body;

8.1.6 consideration of the report on self-assessment of the medical educational organization/scientific organization in the accreditation body;

8.1.7 external evaluation procedure - a visit to the university by an expert commission that conducts an external review and assessment, and prepares a report and

recommendations for the Accreditation Council;

8.1.8 preparation of materials for accreditation of the educational program of the medical educational organization/scientific organization by the Accreditation Council;

8.1.9 consideration of accreditation of the educational program of the medical educational organization/scientific organization by the Accreditation Council;

8.1.10 final decision by the Accreditation Council based on the recommendations of the accreditation body;

8.1.11 publication of a brief report on the accreditation of the educational program of the medical educational organization/scientific organization on the website of the accreditation body in the event of a positive decision;

8.1.12 follow-up procedures to verify the elimination of comments made by the medical educational organization in the light of all the recommendations contained in the report of the external expert commission.

8.2 The procedure for accreditation of universities is carried out in accordance with the legislation of the Kyrgyz Republic in the sphere of education and science, including the SES of the Kyrgyz Republic at the expense of financial resources of medical educational organizations at the request of the organization.

8.3 During the period when a medical educational organization/scientific organization conducts self-assessment of its educational program, the accreditation body provides the educational organization with consulting service, upon prior agreement.

8.4 After completion of the self-evaluation procedure of its educational program, the accredited medical educational organization/scientific organization (not less than 2 months before the intended visit of the expert commission) sends to the accreditation body 4 copies of a self-evaluation report of the educational program (in Russian and/or English), which is carefully studied by all members of the expert group before visiting this medical educational organization. After that, the expert commission visits the medical educational organization/scientific organization to assess the reliability of the self-assessment findings.

8.5 A visit to a medical educational organization/scientific organization is conducted within 2-3 days by a group of experts recommended by universities, research organizations, public associations and employers nominated and certified by the accreditation body. The regulation of the work of the expert group in the medical educational organization/scientific organization is carried out in accordance with the standard and guidelines on external evaluation when visiting a medical educational organization approved by the accreditation body.

8.6 Writing a report on a visit to a medical educational organization/scientific organization is carried out by the external experts to the accreditation body (at least 5 days) and the results of the report are sent by the accreditation body to the medical educational organization.

8.7 Decision-making by the Accreditation Council is carried out on the basis of a self-assessment report of the educational program, the final report of the external expert commission, recommendations of the accreditation body based on the analysis of the documents presented above.

The report of the expert commission and the recommendations of the accreditation body are an obligatory condition for decision-making by the Accreditation Council.

8.8 The Accreditation Council makes the following decision:

8.8.1 to accredit for 1 year - with complying with the criteria in general, but with some drawbacks and opportunities for improvement;

8.8.2 to accredit for 3 years - with positive results in general, but with some minor drawbacks and opportunities for improvement;

8.8.3 to accredit for 5 years - with positive results in general;

8.8.4 denial of accreditation.

8.9 After making a positive decision on accreditation, the accreditation body gives a certificate of accreditation with the indication of the validity term to the medical educational organization.

8.10 Further, the decision on accreditation of the educational program of the medical educational organization/scientific organization is sent to the MES KR and is posted on the website of the accreditation body.

8.11 In case of a negative decision, an educational organization has the right to appeal the decision of the Accreditation Council in accordance with the guidelines for self-assessment, as well as the legislation of the Kyrgyz Republic.

8.12. The accreditation body has the right to send a commission of experts to verify the elimination of comments noted by the external expert commission in the report when visiting a medical educational organization.

8.13 The medical educational organization shall be re-accredited after a set period of time to confirm the status of the accredited educational program and extend the term of accreditation.

9 Follow-up procedures

9.1 In case of failure to comply with the requirements of the accreditation body in relation to the medical educational organization/scientific organization, the Accreditation Council has the right to make the following decisions:

- temporarily suspend the accreditation of the educational program;
- revoke the accreditation of the educational program of the educational organization, which may entail the cancellation of all previously achieved accreditation results and the obligation to go through all stages of accreditation again if the applicant expresses a wish to be accredited again.

9.2 In case of a positive decision by the Accreditation Council of IAAR, the educational organization develops a Plan for the implementation of the recommendations of the EEC of IAAR. The plan is approved by the Director of IAAR and the director of the educational organization. The plan is the basis for post-accreditation monitoring.

9.3 Post-accreditation monitoring of the educational organization activity is carried out as follows:

Duration of accredited period	3 years	5 years
Interim report submission frequency	Once in 1.5 years	Twice every two years
Visit	Once	Twice

In case of accreditation of the educational program for a period of 1 year, the administration of the educational program decides on re-accreditation during this period of time.

10 Procedure for introducing amendments and additions to accreditation standards

10.1 Amendments and additions are made to the current accreditation standard in order to further improve it.

10.2 Amendments and additions to the standard are made by IAAR.

10.3 In the event of initiating amendments and additions to the current standard by educational organizations/scientific organizations and other interested bodies, proposals and comments are sent to IAAR.

10.4 IAAR studies and conducts the examination of proposals and comments received from the initiators on their validity and expediency.

10.5 Amendments and additions to the current accreditation standard after their confirmation are approval by the order of the Director of IAAR in a new edition with changes or in the form of a booklet-insert to the current standard.

11. Standard “MISSION AND FINAL LEARNING OUTCOMES”

11.1 Mission statement

Medical educational organization **shall** determine its mission and bring it to the attention of the stakeholders and the healthcare sector.

11.1.1 The mission statement **shall** contain objectives and an educational strategy that allow to prepare a competent scientist, researcher at the postgraduate medical education level.

11.1.2 Medical educational organization **shall** ensure that the stated mission includes problems of public health, needs of the system of medical care and other aspects of social responsibility.

11.1.3 Medical educational organization **shall** have a strategic plan for the development of the educational program that complies with the stated mission, objectives of the medical educational organization, including improvement of the quality of doctoral programs and approved at the consultative and advisory council of the medical educational organization.

11.1.4 Medical educational organization **shall** systematically collect, accumulate and analyze the information about its activity and the implementation of the doctoral program; conduct an assessment of strengths and weaknesses (SWOT-analysis), on the basis of which medical educational organization administration together with the consultative and advisory council shall determine policy, develop strategic and tactical plans.

11.1.5 The mission and objectives of the medical educational organization **shall** correspond to the available resources, opportunities of the medical educational organization/scientific organization, labour market requirements and the ways to support them should be defined. There shall be access to information about the mission, objectives of the medical educational organization for the public (availability of information in the

media, on the university website). The mission and objectives of the medical educational organization/scientific organization are approved by the consultative and advisory council.

11.2. Participation in mission formulation

11.2.1 Medical educational organization **shall** ensure that key stakeholders are involved in the development of the mission.

11.3 Institutional autonomy and academic freedom

Medical educational organization **shall** have institutional autonomy for the development and implementation of a policy for which teaching staff and administration are responsible, especially in relation to:

11.3.1 development of an educational program;

11.3.2 use of allocated resources necessary for the implementation of the educational program.

Medical educational organization **should** guarantee academic freedom to its employees and doctoral students:

11.3.3 in relation to the existing educational program, which will be allowed to rely on different points in description and analysis of questions on medicine;

11.3.4 in ability to use the results of new research to improve the study of specific disciplines/issues without expanding the educational program.

11.4 Final learning outcomes

11.4.1 Medical educational organization **shall** determine expected final learning outcomes that doctoral students shall show after completing a doctoral program.

11.4.2 Studying in doctorate with the academic award of PhD degree **shall** ensure that doctoral students have the competence that will enable them to become a qualified researcher who is able to conduct independent scientific research in accordance with the principles of the best research practice.

Other competencies (knowledge, skills, attitudes) that are relevant to the doctoral program **shall** include:

11.4.3 demonstration by doctoral students of a systematic understanding in the field of studying and mastering the skills and methods of research in their field;

11.4.4 demonstration by doctoral students of the ability to form, develop, implement and adapt original scientific research in the context of existing academic works at the level required for publication in international reviewed publications;

11.4.5 demonstration of leadership skills by doctoral students, the ability to manage the work of others, project management, the ability to teach and impart knowledge;

11.4.6 ability to exchange views in their field of research with academic supervisors, academic community and society as a whole;

11.4.7 ability to promote, within an academic and professional context, technological, social or cultural progress in a knowledge-based society.

11.4.8 Completion of the doctoral program **shall** have potential benefits for those who continue their careers outside the medical organization and apply their competencies formed during the mastering of the doctoral program, including critical analysis, assessment and resolution of complex problems, ability to transfer new technologies and the synthesis of new ideas.

11.4.9 Medical educational organization/scientific organization **should** ensure that the process of updating and restructuring leads to the modification of final learning outcomes of graduates in accordance with the duties assigned to graduates after the end of a doctoral program.

12 Standard “RESEARCH ENVIRONMENT AND EDUCATIONAL RESOURCES”

12.1 Research environment

12.1.1 Success of individual doctoral programs **shall** be ensured by organizing a strong and efficient research environment.

The quality of research environment **shall** be evaluated by analyzing:

12.1.2 publication of research results (number of publications, impact factor, etc.) on a doctorate profile in the medical educational organization/scientific organization;

12.1.3 the level of attracting external funding for research in a medical educational organization/scientific organization;

12.1.4 the number of qualified and competent teachers, researchers in the group, at the faculty, school;

12.1.5 national and international cooperation with research groups of medical organizations, universities, research centers.

12.1.6 Research **shall** be conducted in accordance with international ethical standards and approved by relevant and competent ethics committees. In their research, doctoral students **shall** follow the observance of international ethical standards: Declaration of Helsinki II (clinical studies), European Union Directive 2010/63/EU (animal research) and the Oviedo Convention (bioethics).

12.1.7 In order to provide access to the means necessary for writing a dissertation, doctoral programs **shall** include training in other laboratories, preferably in another country, thereby ensuring internationalization.

12.1.8 The implementation of the doctoral program **shall** take place in compliance with mutual respect, planning and the overall responsibility of a supervisor and a doctoral student.

12.1.9 Medical educational organization/scientific organization **should** explore the possibility of providing joint doctoral programs with gaining degrees from both universities and joint management to support cooperation between higher education institutions.

12.1.10 Medical educational organization/scientific organization **should** guarantee that the process of updating of educational resources is carried out in accordance with changing needs, such as, for example, enrollment of doctoral students, the number and profile of academic staff, a doctoral program.

Medical educational organization **should**:

12.1.11 provide sufficient autonomy in the allocation of resources, including decent remuneration of teachers in order to achieve final learning outcomes;

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

12.2 Material and technical base

Medical educational organization/scientific organization **shall** have material and technical support that meets the licensing indicators, which include criteria:

12.2.1 classrooms, laboratories and their equipment **shall** be modern and adequate to the goals and objectives of a doctoral program;

12.2.2 doctoral students **shall** be provided with the conditions for independent study and research work;

12.2.3 Medical educational organization/scientific organization **shall** have sufficient resources for the proper implementation of a doctoral program and distribute them according to the needs.

- admission of doctoral students,
- organization of a study process in a doctoral program,
- conduct of a dissertation,
- scientific guidance for doctoral students,
- consultation of doctoral students,
- examination, review and evaluation of a dissertation,
- award of an academic degree,
- operating costs,
- costs of participation in training courses in international scientific conferences,
- tuition fees for studying in doctorate in institutions where it is practiced,
- resources also include a doctoral student's scholarship/salary, but the amount of payment might vary.

12.2.4 Resource policy **shall** be aimed at maintaining and ensuring the continued professional growth of doctoral program teachers.

Medical educational organization **shall**:

12.2.5 provide a safe environment for employees, doctoral students, patients and those who look after them, including the provision of necessary information and protection from harmful substances, microorganisms, compliance with safety regulations in the laboratory and when using equipment.

12.2.6 Medical educational organization **should** improve learning environment of doctoral students through regular updating, expanding and strengthening the material and technical base, which should be consistent with the development in teaching practice.

12.3 Information technology

Medical educational organization/scientific organization **shall** have information support appropriate to the goals and objectives of a doctoral program:

12.3.1 library **shall** contain the necessary materials for study process - educational, technical, scientific and reference books, various medical periodicals, etc.

12.3.2 Doctoral students **shall** have timely and free access to library resources.

12.3.3 Library **shall** have basic technical equipment to support daily activities: fax machines, copy machines, computers, printers, available for public use, and a telephone with voice mail or answerphone.

12.3.4 Library **shall** have an informational website. The website may include the following elements: links, interlibrary exchange forms, full-text electronic journal articles, and a feedback form.

12.3.5 Medical educational organization/scientific organization **shall** regularly monitor library resources, study and implement strategies to meet current and future needs of doctoral students.

12.3.6 In the use of doctoral students **shall** be computer classes and terminals with access to information resources (local network, Internet).

12.3.7 Medical educational organization/scientific organization **shall** provide availability control and adequate use of information resources for doctoral students.

12.3.8 Medical educational organization/scientific organization **shall** constantly update, improve and expand database of information resources

12.3.9 Medical educational organization/scientific organization **shall** open and constantly update on its website a section on doctoral programs containing the following information:

- Structure and staff of the doctorate department, duties of the head and staff of the department;
- Admission policy, including clear rules on the selection process for doctoral students;
- List of doctoral programs;
- Structure, duration and content of doctoral programs;
- Criteria for the appointment of a supervisor, outlining the characteristics, duties and qualifications of a supervisor;
- Methods used to evaluate doctoral students;
- Criteria for the design and writing of dissertations;
- Description of the dissertation submission procedure;
- Description of the Dissertation Council (position, composition, schedule of meetings);
- A quality assurance program and regular evaluation of a doctoral program;
- Information on doctoral students taking into account the year of study.

13. Standard “POLICY AND ADMISSION CRITERIA”

13.1 Medical educational organization/scientific organization **shall** determine and implement a policy of admission, including a clearly defined position on the selection process of doctoral students.

13.2 Medical educational organization/scientific organization **shall** establish relations between the selection of doctoral students and the mission of the medical educational organization, educational program and expected quality of graduates.

13.3 To ensure the quality of doctoral programs, the selection of doctoral students **shall** be based on competition and ensure the transparency of the selection process.

13.4 Candidates for a doctoral program **shall** have a level of education corresponding to the Master of Science degree in the relevant doctoral profile or have completed residency training in medical specialties.

13.5 Before enrolling a doctoral student, medical educational organization/scientific

organization **shall** evaluate the quality of a research project that is planned to be completed by a doctoral student.

13.6 After enrollment in the doctoral program, a doctoral student's dissertation topic and supervisors **shall** be approved.

13.7 The topic of the dissertation **shall** be assessed and approved by a group of independent experts through an external assessment of the written description or based on the presentation of the research work, including:

- expected results of the conduct of the scientific research project, which has to be completed by writing a dissertation in accordance with the required quality standards (the standard "Doctoral dissertation"), during the period of time specified by the doctoral program;
- degree of innovation and creativity of a research project;
- qualification of scientific supervisors (standard "Scientific Guidance").

13.8 Doctoral students **shall** have rights and duties comparable to the status of the medical educational organization/scientific organization where research work is performed.

13.9 In cases where the doctoral student is forced to look for additional sources of income, additional time **shall** be provided for completing the program of study.

Medical educational organization/scientific organization **should** ensure that the process of renewal and restructuring leads to:

13.10 adaptation of the doctoral admission policy taking into account changing expectations and circumstances, needs for human resources, changes in the system of postgraduate education and the needs of the doctoral program.

14. Standard "DOCTORAL PROGRAM (PhD)"

14.1 Medical educational organization/scientific organization **shall** determine the goal and objectives of the doctoral program.

14.2 Doctoral program **shall** be based on the performance of original research, courses, and other types of work that require analytical and critical thinking.

14.3 Doctoral program **shall** be structured with a clear time limit equivalent to 3 years with full-time work day.

14.4 Doctoral program **shall** include compulsory courses in parallel with the dissertation work. A significant part of the curriculum **shall** include training of doctoral students in special skills, which may consist of:

- teaching doctoral students the skills of presenting research results (oral / poster / documents) for academic and non-academic audiences,
- teaching at university,
- project management,
- grant application writing,
- critical evaluation of scientific literature,
- technical staff and doctoral students management,
- professional growth and an organization of cooperation.

14.5 Doctoral program **shall** be carried out under scientific supervision.

14.6 Medical educational organization/scientific organization **shall** determine the teaching and learning methods used.

14.7 Doctoral program **shall** ensure that doctoral students are aware of the rules of ethics and responsible conduct of their research.

In the medical educational organization/scientific organization there **shall** be mechanisms:

14.8 allowing doctoral students, if necessary, to perform part of their doctoral program in another educational institution, including other countries;

14.9 of constant evaluation of the progress of the research work of a doctoral student throughout the doctoral program.

14.10 Medical educational organization/scientific organization **shall** ensure the confidentiality of a doctoral student who consults on a doctoral program, scientific guidance, personal questions.

14.11 Medical educational organization **shall** ensure that the educational program is implemented in accordance with the principles of equality.

14.12 In the medical educational organization/scientific organization, an appeal mechanism **shall** be developed and implemented, allowing doctoral students to reconsider decisions regarding their programs and assess their dissertations.

14.13 Medical educational organization/scientific organization **shall** carry out a regular assessment of the quality of the doctoral program, including feedback from supervisors and doctoral students.

Medical educational organization/scientific organization **should** guarantee that the process of renewal and restructuring leads to:

14.14 adaptation of the curriculum model and methodological approaches in teaching, in order to ensure that they are appropriate and relevant;

14.15 adjustment of elements of the doctoral program and their interrelations in accordance with the achievements in medical sciences, with changes in the demographic situation and the state of health/morbidity structure of the population and socio-economic, cultural conditions.

14.16 improvement of the process of monitoring and evaluating a doctoral program in accordance with changes in final learning outcomes and methods of teaching and learning.

15. Standard “SCIENTIFIC GUIDANCE”

15.1 Each doctoral student **shall** have a leading supervisor and, as appropriate, at least one co-supervisor to cover all aspects of the program.

15.2 The number of doctoral students assigned to the supervisor **shall** be adequate to his workload.

15.3 Academic supervisors are able to be co-supervisors of doctoral students of other organizations, both in the country and abroad.

15.4 A qualified supervisor **shall** have a doctoral degree or an equivalent degree, be an active scientist with publications of scientific research in the refereed literature.

15.5 When choosing and appointing a supervisor, his/her research experience and international relations **should** be analyzed.

15.6 Medical educational organization/scientific organization **shall** have clearly

defined duties and responsibilities of each supervisor.

15.7 Supervisors **shall** conduct regular consultations with their doctoral students.

15.8 Medical educational organization/scientific organization **should** plan and organize training courses for supervisors on the implementation policy of doctoral programs, the main responsibilities of supervisors.

15.9 Medical educational organization/scientific organization **should** envisage the drafting of the contract, which describes the process of scientific management. The agreement shall be signed by the supervisor, doctoral student and doctoral program supervisor.

16. Standard “DOCTORAL DISSERTATION”

16.1. Doctoral program **shall** be completed with the preparation and submission of a doctoral dissertation, which is an indicator of the formation of competence of a doctoral student in accordance with the educational program.

16.2. Medical educational organization/scientific organization **shall** determine the time limit for the preparation of the dissertation, limited to a 3-year period.

16.3. Dissertation **shall** be written by the doctoral student independently, contain a set of new scientific results and provisions put forward by the author for public submission, and testifies to the author's personal contribution to science, and also meets one of the requirements:

16.4 contain new science-based results that solve an important *scientific problem*;

16.5 contain new scientifically based results, the use of which provides a solution to an important *applied problem*;

16.6 contain new scientifically based theoretical and/or experimental results, the totality of which is important for the development of *specific scientific fields*.

16.7 The structure of the dissertation **shall** include a review of the literature relating to the research topic, a detailed analysis of the goals and objectives of the research work, methodological framework, methodological decisions, results, discussion, conclusion, deductions and further research prospects.

16.8 The dissertation that has practical importance **shall** contain information on the practical use of the scientific results obtained by the author, confirmed by copyright certificates, patents and other official documents.

16.9 Dissertation **can** be written in the state or Russian languages.

16.10 To ensure international recognition, the dissertation might be written and submitted in English.

16.11 The abstract of the dissertation **shall** be published in the state, Russian and English languages.

16.12 The abstract of the doctoral dissertation **shall** be published in two languages (English, Russian or Kyrgyz), depending on the main language of study of the doctoral student.

16.13 The results of the dissertation **shall** be made available to interested parties (doctoral students, supervisors, employees of the organization where the dissertation has been carried out, researchers performing scientific work in a similar direction, and other categories of stakeholders), i.e. published if copyright or other reasons do not prevent it.

16.14 Dissertation **might be** published on the home page of the medical educational organization/scientific organization in which the scientific work has been carried out, both in a short form (summary, thesis), and in full, if copyright, or other reasons, do not prevent it.

16.15 Dissertation **shall** be accompanied by at least 7 (seven) publications on the topic of the dissertation, including at least 3 (three) in scientific journals recommended by the Committee, 1 (one) in an international scientific publication, 3 (three) in materials of international conferences, including 1 (one) in the materials of foreign conferences. The international publication **shall** be in the information base of Thomson Reuters (ISI Web of Knowledge, Thomson Reuters) or Scopus, and have a non-zero impact factor.

16.16 In case of joint publications, the co-author **should** documentarily confirm that the doctoral student has made a significant and independent contribution to the writing of these works. Ownership of the results of the doctoral research **shall** be clearly defined and described. This will avoid re-publishing the results in more than one dissertation.

16.17 Medical educational organization/scientific organization **shall** provide a discussion of the dissertation of a doctoral student at a meeting of the department (departments) where the dissertation has been carried out.

17. Standard “DISSERTATION EVALUATION”

17.1 Medical educational organization/scientific organization **shall** define, approve and publish the principles, methods and practice used to evaluate doctoral students, including the criteria of evaluating scientific work.

17.2 Final assessment and approval of the dissertation **shall** be carried out by the Dissertation Council.

17.3 Dissertation should be submitted at the university where the Dissertation Council on the current direction of the doctoral student preparation functions.

17.4 Dissertation **shall** be reviewed.

17.5 Reviewers on the basis of studying the dissertation and published works **shall** submit written comments to the Dissertation Council, which evaluate the relevance of the chosen topic, the degree of validity of scientific statements, conclusions, recommendations formulated in the dissertation and its practical importance, their novelty, and also give a conclusion about the possibility of awarding the degree of Doctor of Philosophy (PhD) in the relevant specialty.

17.6 Submission of a doctoral dissertation **shall** include both the preparation of a written version and the subsequent oral submission.

17.7 Submission of the dissertation **shall** be open to the public.

17.8 The time between the presentation of the dissertation to the Dissertation Council and submission **shall** be as short as possible in order to ensure that the graduate of the doctoral program will be employed in the future.

17.9 Dissertation submission **should** be considered successful if the Dissertation Council has made a positive decision, i.e. 2/3 (two thirds) and more members of the Dissertation Council who participated in the meeting have voted for it. If less than 2/3 (two-thirds) of the members of the Dissertation Council who participated in the meeting have voted for a positive decision, a negative decision is taken.

17.10 In case of a negative assessment of the written version of the dissertation, the doctoral students **should** be given the opportunity to complete the dissertation. If a negative assessment is given in the oral submission, the doctoral student has to be allowed an additional submission. In exceptional cases, the Dissertation Council might reject the dissertation without the possibility of review.

17.11 Doctoral degree **shall** be awarded by the medical educational organization/scientific organization based on the decision of the Dissertation Council, which assesses the dissertation and oral submission in accordance with the standard “Doctoral dissertation”.

17.12 In order to achieve independent and competent international expertise, medical educational organization/scientific organization **should** actively use information technologies that allow some members of the Dissertation Council to participate in the process of assessment and submission of a dissertation in a remote format.

18. Standard “MANAGEMENT AND ADMINISTRATION”

18.1 Program management

18.1.1 Management of a university/scientific organization **shall** be effective and ensure the improvement of the educational program.

18.1.2 Medical educational organization/scientific organization **shall** determine the structural unit responsible for the educational programs and achievement of final learning outcomes.

18.1.3 The structural unit responsible for educational programs **shall** have the authority to plan and implement an educational program, including the allocation of provided resources for planning and implementing teaching and learning methods, evaluation of doctoral students, assessment of the educational program and training courses.

18.1.4 Representatives of doctoral students **shall** interact with the administration of a doctoral department in the design, management and evaluation of doctoral programs.

18.1.5 Involvement of doctoral students in the work of student organizations working on the development of programs on the preparation of doctoral students **should** be encouraged and promoted.

18.1.6 The structural unit responsible for educational programs **should** ensure the transparency of the management system and the decisions made, which are published in bulletins, posted on the website of the university, included in the protocols for review and execution.

18.1.7 Medical educational organization **should**, through the structural unit responsible for educational programs, plan and implement innovations in the educational program.

18.1.8 Medical educational organization **should** include representatives from other relevant interested parties in the structure of the medical educational organization responsible for educational programs. These educational programs include other participants in the educational process, representatives from clinical sites, graduates of medical educational organizations, health professionals involved in the training process or other university faculty teachers.

Medical educational organization **should** guarantee that the structural unit responsible for the educational program:

18.1.9 takes into account the particular conditions in which graduates have to work and modify the educational program accordingly.

18.1.10 considers the modification of an educational program based on feedback from the public and society as a whole.

18.1.11 Medical educational organization **should** periodically conduct an assessment of academic management regarding the achievement of its mission and final learning outcomes.

Medical educational organization **should** ensure that the process of updating and restructuring leads to

18.1.12 improvement of the organizational structure and management principles of a doctoral program to ensure effective activity in conditions of changing circumstances and needs, and, in the long term, to meet the interests of various groups of stakeholders.

18.2 Academic management

18.2.1 Medical educational organization **shall** clearly define the responsibility of academic management in the development and administration of the educational program.

18.2.2 Medical educational organization **should** periodically evaluate academic management regarding the achievement of its mission and final learning outcomes.

18.3 Budget for training and resource allocation

Medical educational organization **shall**:

18.3.1 have a clear set of responsibilities and authority for providing the educational program with resources, including a targeted budget for training;

18.3.2 allocate resources necessary for the implementation of the educational program, and distribute educational resources in accordance with their needs.

18.3.3 The system of financing a medical educational organization **shall** be based on the principles of efficiency, effectiveness, priority, transparency, responsibility, differentiation and independence of all levels of budgets.

18.3.4 Financial and administrative policy **shall** be aimed at improving the quality of the educational program.

Medical educational organization **should**:

18.3.5 provide sufficient autonomy in the allocation of resources, including decent remuneration of teachers in order to achieve final learning outcomes;

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

18.4 Administration staff and management

Medical educational organization **shall** have the appropriate administrative and academic staff, including their number and composition in accordance with the qualifications in order to:

18.4.1 ensure the implementation of the educational program and relevant types of activity;

18.4.2 guarantee proper management and allocation of resources.

18.4.3 Medical educational organization/scientific organization **should** develop and implement an internal program of quality assurance of management, including consideration of the needs for improvement, and conduct regular management review and analysis.

18.4.4 Medical educational organization/scientific organization **shall** ensure the implementation of the doctoral program in accordance with the quality management system certified by independent organizations.

18.5 Interaction with the healthcare sector

18.5.1 Medical educational organization **shall** have a constructive interaction with the healthcare sector, with related sectors of healthcare, society and government, including the exchange of information, cooperation and initiatives of the organization, which contributes to the provision of qualified professionals in accordance with the needs of society.

18.5.2 Medical educational organization **shall** provide operational connection between the educational program and the subsequent stages of training.

18.5.3 Medical educational organization should give an official status to cooperation with partners in the healthcare sector, which includes the conclusion of formal agreements with the definition of the content and forms of cooperation and/or concluding a joint contract and establishment of a coordinating committee, and joint activities.

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