

Accreditation of Doctoral Study Programs in Serbia

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Abstract

There is given an overview of standards for accreditation of doctoral study programs in Serbia. There is presented a method of measuring the workload of mentors at all higher education institutions in Serbia, which corresponds to the law of higher education.

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1.Introduction

The procedure in Serbia to the accreditation of doctoral study programs are completely under responsibility of Commission for Accreditation and Quality Assurance (CAQA). Since doctoral study programs are fundamental for all study programs and future staffs of higher education CAQA took lot of efforts to manage corresponding standards and to realize them in the practice, see [1]. Surely that for successful doctoral study programs most important are teachers and mentors, and CAQA took lot of care on teaching staffs. For controlling this important part there are developed more sophisticated approaches, e.g., at Hungarian Accreditation Commission (HAC), see [2]. Namely, in Hungary the procedure involves two institutions: HAC and Hungarian Doctoral Council. The last one decide about lecturers who will be the basic lecturer for specific subjects, and made a pool of basic lecturers. Then each doctoral study program have to have some number of basic lecturers (the number depends on the number of students). After that HAC is taking the accreditation procedure of doctoral study programs.

In Serbia in the first accreditation round there were the following results. Number of accredited doctoral studies in Serbia (until June 2012) is 207 (176 state, private 31). A percentage of doctoral study programs related to all study programs was 13.3%, but the percentage related to the number of all students was only

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1.8%, see for more details [3].

The procedure of the accreditation were managed related to twelve standards, which will be presented in the next two sections. In the last section we present a method of measuring the workload of mentors in Serbia.

2. Standards

Special standard : Competency higher education institution for doctoral studies

Standard 1 Structure of the study program

Standard 2 Purpose of the study program

Standard 3 Objectives of the program

Standard 4 : Competences of graduated students

Standard 5 : Curriculum

Standard 6: Quality, modernity and international convergence of study programs

Standard 7: Admission of students

Standard 8: Grading and promotion of students

Standard 9: Teaching staff

Standard 10 : Organization and material resources

Standard 11: Quality control

We shall examine only some of the most important standards.

Special standard : Competence of higher education institution to carry out the doctor studies The higher education institution shall have a short term and long term work program, and shall be accredited as science research institution in keeping with the law. Capacities of a higher education institutions shall be measured according to the following criteria:

- number of doctoral dissertation and master thesis that were granted in the higher education institution in the area of accreditation of the study program, taking into account the ratio between the number of doctoral and master dissertations to the graduated students and the number of teachers;
- ratio of the number of teachers and the teachers involved in the science research projects;
- ratio of the number of publications and international magazines namely the number of articles in the international magazines of the ministry competent for science in the last 10 years and the number of teachers;
- cooperation achieved with the institutions in the country and abroad. The higher education institution has the teachers under permanent employment contracts who were the mentors for doctoral thesis.

Standard 4: Competences of graduated students

The student who completed the study program of the doctoral studies acquires general and specific capacities second to the quality of performance of the professional, scientific and artistic activity. The program of doctoral studies should enable the students, after the completion of the study, to have knowledge, skills, developed abilities and competences for:

- independent solution of practical and theoretical problems in the area they covered and organize and carry out R&D;
- integration into the international scientific projects;
- carrying out the development of new technologies and procedures within their professions and to understand and use the latest knowledge in the given scientific area;
- thinking critically and acting creatively and independently;
- observing the principles of the code of ethics of goods scientific practice;

- communicate at the professional level in presenting their science research results, are trained to present the results at the scientific conferences, publish them in the scientific magazines, via patents and new technical solutions;

- contributing to the development of a scientific discipline and science in general. Having completed the study program the student acquires the subject-specific competences, as follows:

- fundamental knowledge and understanding of the discipline of the corresponding occupation;
- capacity of solving the problems by using scientific methods and procedures;
- compilation of the basic knowledge from different areas and their application;
- capacity to follow up contemporary achievements in the profession;
- develop skills and agility to use knowledge in the respective field;
- use the ICT in mastering the knowledge in the relevant area.

Standard 5: Curriculum

Curriculum contains a list and structure of obligatory and optional subjects and models with description and doctoral dissertation as a final part of the study program of the doctoral studies, except the doctors of art, which is an artistic program. and capacities they acquire during the studies. Curriculum contains the defined fundamentals for independent research work of the students. Curriculum defines the subjects and modules by volume and contents and the manner of realization. The description of the contents contains the name, type of the subject, year and semester of studies, number of ECTS credits, name of the professor, the objective of the subject with the expected outcomes (knowledge and capacities), pre conditions for attendance, contents of the subject, recommended literature, methods of delivery of teaching, assessment of knowledge and grading and other appropriate data. The number of credits corresponding to the optional subjects is minimum 50% of the total number of credits that correspond to all the subjects of the study program. Curriculum more closely defines the requirements concerning the preparation of doctoral dissertation, specific for every educational scientific namely educational artistic field within the area. The doctoral dissertation is an independent scientific or artistic work of the students at the doctoral studies.

The procedure for application, elaboration and defense of the doctoral dissertation is specified in the general bylaw of the independent higher education institution. The number of credits for doctoral dissertation enters the total number of credits needed for finalization of doctoral studies. At least a half of ECTS credits foreseen for the realization of doctoral studies goes to

the doctoral dissertation and subjects which are connected with the topic of the doctoral dissertation.

Standard 9: Teaching staff

For the realization of the study program of doctoral dissertation there is teaching staff with the necessary scientific capacities. The higher-education institution which delivers the doctoral dissertation should have:

- defined selection criteria for teachers under permanent employment contract who have full time contract in a higher education institution and developed system of selection of teachers from other scientific institutions who take part in the delivery of doctoral studies;

- teachers capable of teaching at the doctoral studies proven by the list of works (10 major works) and the data on the participation in the national and international scientific research projects;

- minimum half of the teaching staff involved in science research projects.

Mentor has at least five scientific works published or accepted for publication in scientific magazines of the related area of the study program from the list of the ministry in charge of science in the last 10 years. Mentor may attend to maximum five candidates for a doctor at the same time. The minimum number of teachers who take part in the study program of the doctoral studies with the permanent employment contrast is five. Of the total number of teachers 50% are under permanent employment contact with the higher education institution.

3. Supplementary accreditation standards of doctoral studies within the educational scientific namely educational artistic field

3.1. Mathematics sciences

Standard 8: Grading and promotion of students

At least one work of the student is published or accepted for publication in a magazine on SCI list.

Standard 9: Teaching staff

The competence of the teachers is determined on the basis of: scientific works published in the international magazines (at least one work published or accepted for publication in a magazine on SCI list), local magazines, science work published in the proceeds of international scientific gatherings, monographs, patents, text books, new products or essentially improved existing products. Mentor has minimum three works on SCI list (criterion applicable as of 01.01.2009) and five works from SCI list (criterion applicable as of 01.01.2010).

3.2. Social- humanistic sciences

Standard 8: Grading and advancement of students

At least one work of the student published or accepted for publication in a national magazine figuring on the list of the Ministry in charge of science.

Standard 9: Teaching staff

Old rules: The competence of teachers is determined on the basis of scientific works published in the international magazines, national magazines, works published in the proceedings of the international scientific gatherings, monographs, patents and textbooks. The teacher who delivers the teaching at the doctoral studies has at least one work published or accepted for publication in a magazine on SSCI list (criterion applicable as of 01.01.2010). Mentor shall have at least three works published or accepted for publication in the magazine on SSCI list (criterion applicable as of 01.01.2010).

New rules (01.06.2013): The competence of teachers is determined on the basis of scientific works published in the international magazines, national magazines, works published in the proceedings of the international scientific gatherings, monographs, patents and textbooks. The teacher who delivers the teaching at the doctoral studies has at least 12 points (corresponding points by rules of Ministry of education and science) for papers in categories: M11, M12, M13, M14 (monographs and chapters in monographs); M21, M22, M23, M24 (international scientific journals); M31, M32, M33, M34 (international conferences); M51 (domestic scientific journal). Mentor has at least 24 points in the following way: at least two works published or accepted for publication in the magazine on SSCI list or in journal of category M24, and at least 20 points from categories: M11, M12, M13, M14, M21, M22, M23, M24, M31, M32, M33, M34, M51. Papers from categories M31, M32, M33, M34, can be maximally involved with 20% points in the prescribed minimal 24 points.

3.3. Medical sciences

Standard 8: Grading and advancement of students

At least one work of the student is published or accepted for publication in a magazine on SCI list.

Standard 9: Teaching staff

The competence of the teachers is established on the basis of scientific works published in the international magazines (at least one work published or accepted for acceptance in the magazine on SCI list), scientific works published in national magazines, the works published in the proceedings from the international scientific gatherings, monographs, patents, new products or essentially improved existing product. Mentor has at least three works from SCI list (criterion valid as of 01.01.2009) and five works from SCI list (criterion applicable as of 01.01.2010).

3.4. Technical-technological sciences

Standard 8: Grading and advancement of students

At least one work of the student published or accepted for publication from SCI list.

Standard 9: Teaching staff

The competence of teachers is determined on the basis of scientific works published in the international magazines (at least one work published or accepted for publication in a magazine on SCI list), scientific works published in national magazines, works published in proceedings from the international scientific conferences, monographs, patents, textbooks, new product or significantly improved existing product, new plant species, new livestock and new technologies. Mentor has at least three works from SCI list (criterion applicable as of 01.01.2009) and five works from SCI list (criterion applicable as of 01.01.2010).

3.5. Arts

Instructions for use of Standard 9: 9.1. The higher education institution implementing doctoral studies should have defined criteria and a developed system for the selection of teachers from the system as well as other educational, cultural and scientific institutions involved in the implementation of doctoral studies. 9.2. A mentor can be a doctor or a professor of art in the relevant field of art. 9.3. Mentor can take up to five PhD students at the same time. 9.4. Minimum number of teachers participating in the study program of doctoral studies is five.

4. Workload of mentors

CAQA managed a pool of mentors at the level of whole higher education institutions in Serbia. Then CAQA is measuring the workload of mentors at whole Serbia in the following way.

The workload of mentor at one doctoral study program is given as quotient of the minimum number of mentors in a program of study (three times the number of students at doctoral study program divided by five) divided by the actual number of mentors at this study program, and all multiplied by 100. This means that one

teacher for all doctoral studies at the level of Serbia, as a mentor, must not exceed 100%. Example: At study program 1, there are 6 mentors, and entered 5 students. Workload of mentor is then 50%. At study program 2, there are 15 mentors and 10 students involved. Workload of mentor is 40 %. Then, e.g., Charles Brown who was a mentor to both study programs have 90% of the workload .

References

- [1] Web site of CAQA, www.kapk.org,
- [2] Web site of MAB,
- [3] Self-evaluation Report of CAQA, CAQA, Niš, 2012.