

# ***Standards for Accreditation of Doctoral Study Programs***

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## ***Introduction***

- **CAQA** and **NCHE** were established in 2006 as bodies in charge of QA in Serbian HE
- In October 2006, CAQA proposes and NCHE adopts three sets of standards:
  - standards for self-evaluation of HEIs
  - standards for external quality control of HEIs
  - **standards for accreditation of higher education institutions and study programs ( which include standards for accreditation of programs of doctoral studies)**

## ***Introduction***

- **CAQA** has been granted full **ENQA** membership in 2013, listed in **EQAR** since 2014
- Main activity: Accreditation of HEIs and study programs, a periodic activity with the 5-year period
- **2007-2011: First accreditation round**  
202 HEIs and 1553 study programs were accredited  
**207 DS** for **3300** students enrolled in the first year
- **2012-2016: Second accreditation round**  
up to now **188 DS** for **2909** students in the first year

# ***Standards for DS Programs (in Science)***

## ***Standard 1: Competence of the higher education institution for realization of doctoral studies***

*The higher education institution proves its competence for delivery of doctoral studies according to the indicators related to the scientific research.*

Prerequisite: The HEI is accredited as scientific research institution in accordance with the law.

Indicators for Standard 1:

- number of scientific projects involving the HEI;
- number of scientific publications;
- number of doctoral dissertations that were granted by the HEI in the area of the study program;

# ***Standards for DS Programs***

## **Standard 2: *Structure of the study program***

*The doctoral studies carry minimum 180 ECTS credits, with the prior achievement of at least 300 ECTS credits at the bachelor and master academic studies. The doctoral dissertation is the final part of the study program of the doctoral studies.*

Indicators for Standard 2:

- list of compulsory and elective courses with ECTS values;
- value of doctoral dissertation expressed in ECTS;
- conditions for admission of students

# ***Standards for DS Programs***

## **Standard 3: *Aims of the study program***

*The study program of doctoral studies has clearly defined and published aims and the role in the educational system.*

Indicators for Standard 3:

- the study program contributes to the development of science, critical opinion and education of professionals capable of original and scientifically relevant research and development of new technologies and procedures useful to the general development of the society;
- the aim of the study program must be in compliance with the mission and objectives of the higher education institution where the program is delivered.

# ***Standards for DS Programs***

## ***Standard 4: Objectives of the study program***

*The study program of doctoral studies has defined objectives.*

Indicators for Standard 4:

- the objectives of the study program include building of scientific capacities and academic skills, development of creative abilities and **mastering of specific practical skills needed for the future career advancement**;
- the objectives of the study program of doctoral studies are harmonized with the modern trends of the corresponding scientific discipline in the world.

# ***Standards for DS Programs***

## **Standard 5: Competences of graduated students**

*The student who completed the study program of the doctoral studies acquires general and specific competences that are subordinated to the quality of performance of the professional and scientific activity.*

Indicators for Standard 5:

- the list of general competences;
- the list of subject-specific competences;
- **acquired competences allow graduated students further professional development in science, education, economy and the public sector.**



# ***Standards for DS Programs***

## **Standard 6: Curriculum**

*The curriculum contains a list and the description of compulsory and elective courses and the doctoral dissertation as the final part of the study program of doctoral studies.*

Indicators for Standard 6:

- the description of each course contains the name, type, semester, number of ECTS credits, name of the professor, the objective of the course with the expected outcomes (knowledge and capacities), contents of the course, recommended literature and other appropriate data.

## ***Standards for DS Programs***

- the number of credits corresponding to the elective courses is minimum 50% of the total number of credits that correspond to all the courses of the study program, including transferable skills (communication skills, entrepreneurship, project management, ethics, standardization, intellectual property protection);
- the curriculum more closely defines the requirements concerning the preparation of doctoral dissertation, which is an independent scientific contribution of the student;

## ***Standards for DS Programs***

- at least 90 ECTS goes to the doctoral dissertation and the courses which are connected with the topic of the doctoral dissertation;
- during the 6 semesters students have at least 20 contact hours with professors per week (5 hours of lectures, 15 hours of research)

# ***Standards for DS Programs***

## ***Standard 7: Quality, relevance and international compatibility of the study program***

*The study program follows the modern world trends in the profession and science in the corresponding scientific field, is aligned with the strategic priorities of the country and is comparable to the similar programs at foreign higher education institutions within the European higher educational area.*

Indicators for Standard 7:

- comparative analysis of the study program and three related programs of doctoral studies in European higher education area.

## ***Standards for DS Programs***

- the study program is essentially and formally agreed with the strategies of development of education, science and profession in the Republic of Serbia.

# ***Standards for DS Programs***

## **Standard 8: Admission of students**

*The higher education institution, in line with the social demands and requirements of the development of science, education and culture and with its resources shall admit the students to the study program of the doctoral studies.*

Indicators for Standard 8:

- the number of students admitted to the study program is established relative to available premises, teachers and other capabilities of the institution and estimated social demands at the labor market.

## ***Standards for DS Programs***

- candidates who achieved at least 300 ECTS credits at the bachelor academic and master academic studies and have the average grade at least 8 (of maximum 10) have the right to apply for admission;
- the doctoral studies require fluency in at least one foreign language, which is determined by the higher education institution.
- the type of knowledge, abilities and capabilities tested on the admission, as well as the manner of testing are clearly defined.

# ***Standards for DS Programs***

## **Standard 9: *Grading and advancement of students***

*The grading of the students is performed by a permanent follow-up of their progress on the basis of credits acquired by completing pre examination obligations and by taking the exams. The doctoral dissertation is awarded on the basis of indicators of its scientific contributions.*

Indicators for Standard 9:

- the number of ECTS credits for each course is determined on the basis of the work load of students using a predetermined methodology adopted by the HEI;



## ***Standards for DS Programs***

- the dissertation is an independent scientific research project whose scientific contribution is graded according to the number of the scientific publications, patents or technical improvements;
- the conditions which need to be met prior to the defense of the doctoral dissertation are based on the papers published or accepted for publication in peer reviewed journals with impact factor and/or journals from the official list of the ministry in charge of science.
- the progress of each student is reviewed once a year and the obtained data is included in the self-evaluation report of the study program.

# ***Standards for DS Programs***

## **Standard 10: *Teaching staff***

*For the realization of the study program of doctoral studies there is the teaching staff with the necessary scientific capacities.*

Indicators for Standard 10:

- number of teachers which have competences for teaching at the doctoral studies;
- competences of teachers are proven by the list of papers in scientific journals (10 major contributions, **3 in peer reviewed journals with impact factor and/or journals from the official list of the ministry in charge of science**) and the data on the participation in the national and international scientific research projects;

## ***Standards for DS Programs***

- minimum half of the teaching staff are involved in scientific research projects.
- the mentor has at least five papers published in peer reviewed journals with impact factor and/or journals from the official list of the ministry in charge of science in the area related to the study program in the last 10 years;
- the mentor may advise maximum five candidates at the same time;
- the minimum number of teachers who take part in the study program of the doctoral studies with the permanent employment contract is five.
- of the total number of teachers, 50% are under permanent employment contract.

# ***Standards for DS Programs***

## **Standard 11: *Organizational and material resources***

*The delivery of the study program is secured by suitable human resources, premises, technical and technological equipment, library and other facilities adequate to the character of the doctoral study program and the number of students admitted.*

Indicators for Standard 11:

- the HEI has short term and long term plan and budget for the realization of scientific research.

## ***Standards for DS Programs***

- the HEI provides the students with the equipment or access to the equipment needed in scientific research, which is documented by the list of the equipment owned by the institution and by contracts on cooperation with other respective organizations;
- the HEI provides the access to the library and the use of library resources from own and other sources (books, monographs, scientific journals, other periodicals) in the volume needed for the realization of the program of doctoral studies;

## ***Standards for DS Programs***

- students of doctoral studies have access to the data bases necessary for making the doctoral dissertation and for scientific research;
- an adequate space is secured for delivery of teaching courses of the study program, suitable laboratories for experimental work and equipment based on contemporary ICTs.

# ***Standards for DS Programs***

## **Standard 12: *Quality control***

*Every study program of the higher education institution regularly and systematically controls the quality via self-assessment and external quality reviews.*

Indicators for Standard 12:

- quality control of the study program entails regular and systematic follow-up and taking the measures for improvement in the following segments: curriculum, teaching, teachers and assessment of students;
- quality control of the program is carried out periodically every three years.

## ***Standards for DS Programs***

- the study program quality control provides for the active role of students and their assessment of quality of the program.
- the HEI defines procedures for systematic follow-up of the quality of doctoral dissertations and for preventing plagiarism.



# ***Standards for DS Programs***

## **Standard 13: *Transparency and publicity***

*The higher education institutes provides public availability of the study program and the doctoral dissertation as the final results of doctoral studies.*

Indicators for Standard 13:

The HEI establishes a digital repository with permanently stored electronic version of the defended doctoral dissertation, together with the report of the comission for evaluation of the dissertation and the data about the scientific papers of the candidate whose publication was a prerequisite for the defense and makes all the information publicly available on its official website.

## ***Standards for DS Programs***

- The HEI is obliged to provide data on the mentors, together with details of their competence and previous mentoring, publicly available on its official website.

# Amendments to rules and regulations for accreditation of DS programs

- The accreditation documentation has to be submitted in Serbian and English
- In the accreditation process of a study program of doctoral studies at least one reviewer must be a teacher, a scientist or an artist working in a higher education or scientific institution from abroad, who meets the requirements to be a mentor.

## ***Conclusions***

- Accreditation standards for DS are reconsidered
- Stronger emphasis on research part of doctoral dissertation is made
- Soft skills are introduced as added value
- Connection with the society is reinforced
- Norms concerning the academic staff are strengthened
- Measures against plagiarism are introduced
- Internationalization of quality assessment of DS