

# UNIVERSITY OF PANNONIA



## DOCTORAL SCHOOL OF CHEMISTRY AND ENVIRONMENTAL SCIENCES

## QUALITY ASSURANCE REGULATIONS AND PROCEDURES

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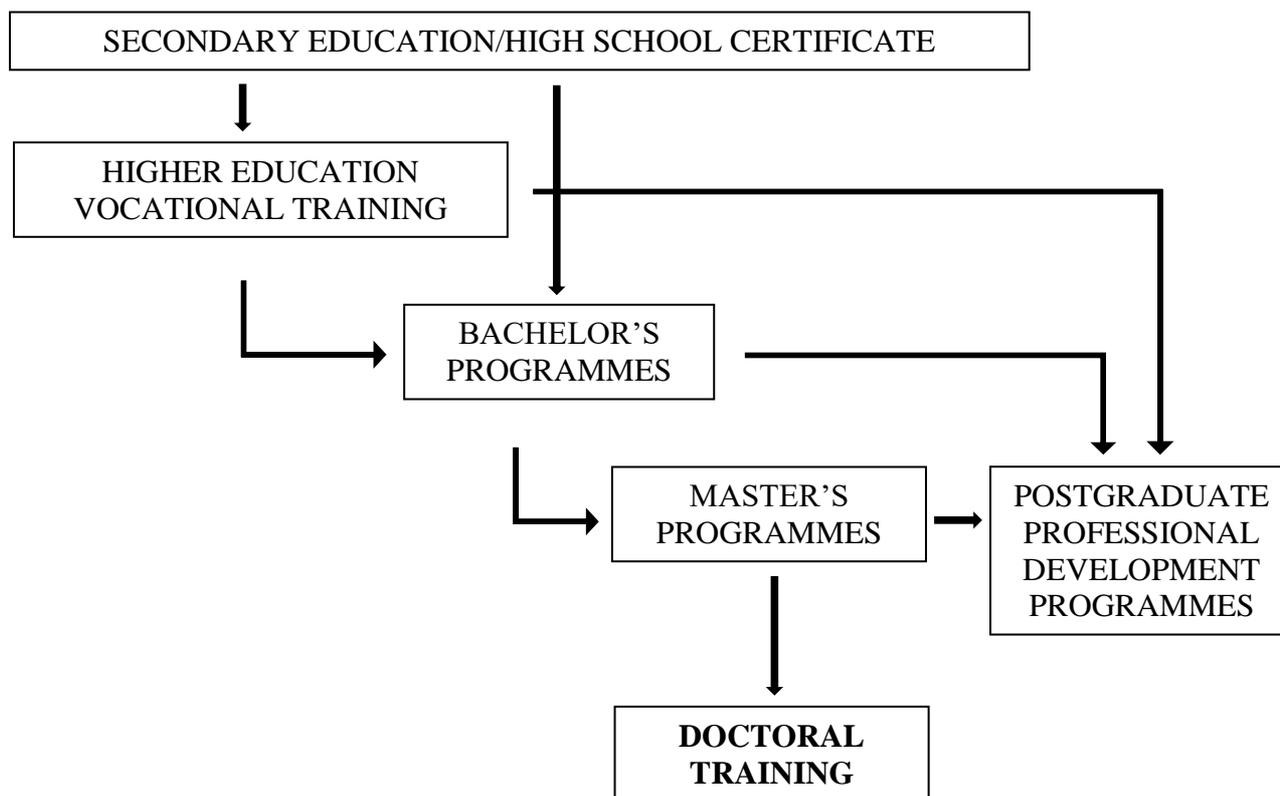
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## 1. Introduction

### 1.1. The position of the DSCES within the structure of the University

The doctoral training and the doctoral degree procedure are part of the university education and are connected to master's degree programmes and postgraduate professional development programmes (Figure 1).

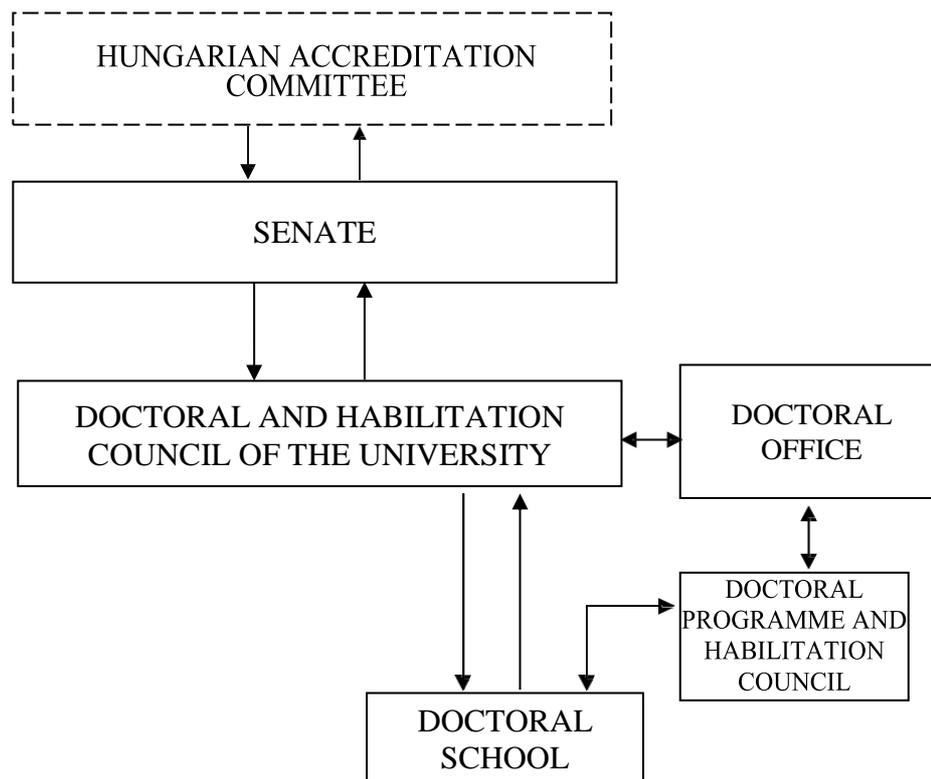


**Figure 1. The position of the doctoral training in the overall institutional educational process**

The Rector is responsible for the doctoral training and the doctoral degree procedure, its highest governing body is the Doctoral and Habilitation Council of the University (hereinafter UDHC) which is supervised by the Senate.

The organization of the doctoral training and the doctoral degree procedure is the doctoral school (hereinafter DS). The DS is directly governed by the Doctoral Programme and Habilitation Council (hereinafter DPHC), which is supervised by the UDHC.

The works of the UDHC and the DPHC are assisted by the Doctoral Offices (DOs). The organization of the doctoral training and the doctoral degree procedure consists of the UDHC, the DO, the DPHC and the DS (Figure 2).

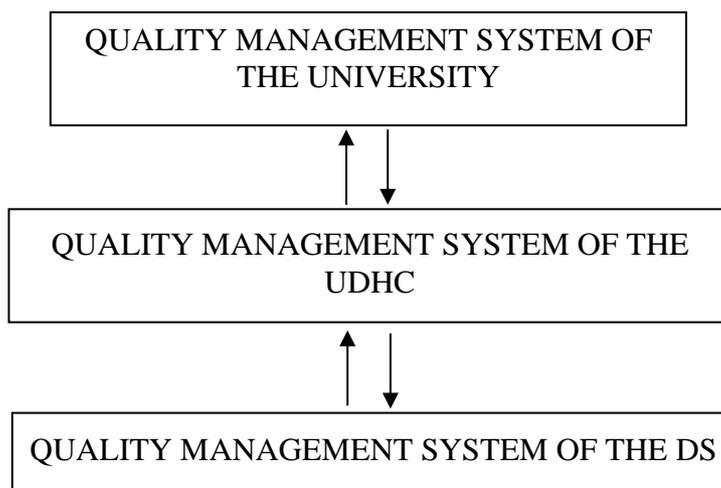


**Figure 2. The position of the DS in the university governance system**

***1.2. The position of the quality management of the DSCES within the quality management structure of the University***

The Rector and the head of the UDHC are responsible for the quality of the doctoral training and the doctoral degree procedure. The quality management system of the doctoral training and the doctoral degree procedure forms part of the quality management system of the University. The quality management system of the doctoral training and the doctoral degree procedure is directed by the quality manager of the DPHC.

The DS is an independent management unit of the doctoral training and the doctoral degree procedure from a quality point of view. The quality management system of the DS is directed by the quality manager of the DS. The position of the quality management system of the DS in the quality management structure of the University is shown in Figure 3.



**Figure 3. The position of the quality management system of the DS within the quality management structure of the University**

The quality management system of the DS must be connected to the quality management system of the master's and postgraduate professional development programmes (Figure 1).

## **2. The quality management of the DSCES**

### ***2.1. The quality policy of the DSCES***

The internationally renowned chemical engineering school of Veszprém, with 70 years of experience, is built on the traditions of the mineral oil and coal processing industry, silicate chemistry and the inorganic chemical industry, as well as the schools of chemical engineering operations and process control. In harmony with the system of the DSs of the University of Pannonia (hereinafter UP), which has developed into a universitas, the aim of the DSCES is to implement doctoral training that educates doctors possessing a high level of culture in chemistry, environmental engineering, and environmental sciences, who are well-educated and committed to the life of the intelligentsia. The aim of our quality policy is that our graduated students should serve the scientific and economic development of our country in a creative and efficient manner, successfully stand their ground in fields related to the given discipline, and promote the development of Hungarian higher education and scientific life, as well as form its recruitment base.

### ***2.2. The quality capacity and quality of the DSCES***

The quality capacity of the DSCES is determined by the value system and intellectual culture of the organization of the DS (in particular the scientific and educational abilities of the supervisors and lecturers, as well as their work demonstrable by scientometric indicators), its infrastructure, and furthermore the capabilities of the organization, such as the system supporting the training of students and the international network of relations of the organization.

The quality of the DS is the satisfaction of those interested in the process of the training and the doctoral degree procedure (the scientific community, participants in the training, economic participants, the University, the supervisors and the lecturers). The quality can be assessed by satisfaction and by appropriately selected performance characteristics.

### ***2.3. The quality management system of the DSCES***

For the purpose of maintaining and regularly improving the quality of the doctoral training and the doctoral degree procedure, the DSCES establishes and operates a quality management system. To this end, the management has appointed the quality assurance manager of the DSCES and ensures the necessary conditions for the establishment and operation of the quality management system. For the operation of the quality management system of the DSCES, the quality management documentation system is prepared under the direction/with the participation of the quality assurance manager (“Quality Management Regulations of the University of Pannonia”, “Quality Assurance Regulations and Procedures of the DSCES”), as well as the quality management information system.

## **3. Process and compliance regulation of the DSCES**

### ***3.1. Basic principle***

The regulation of the quality of the DSCES must be implemented through the regulation of the processes, as well as through the compliance regulation of the processes and of the determining persons, organizations, programmes, and systems participating in them.

We intend to achieve the regulation of the processes of the doctoral training that ensures a continuous increase in standards by evaluating effectiveness on the basis of measuring the satisfaction of the participants (students, lecturers) and employers. To this end, we have organized the sub-processes of the training into such a process in which the quality objectives of individual sub-processes can be derived from the requirement system of the DS, and may be supplemented by additional regulations corresponding to the professional characteristics. The sequence of the connections between the sub-processes, the system of requirements and regulations functioning as regulatory tools, as well as the feedback system based on evaluations, is shown in Figure 4.

The participants in the given sub-process, as well as the supervising or governing university organizations, are indicated by abbreviations.

University of Pannonia, Doctoral School of Chemistry and Environmental Sciences  
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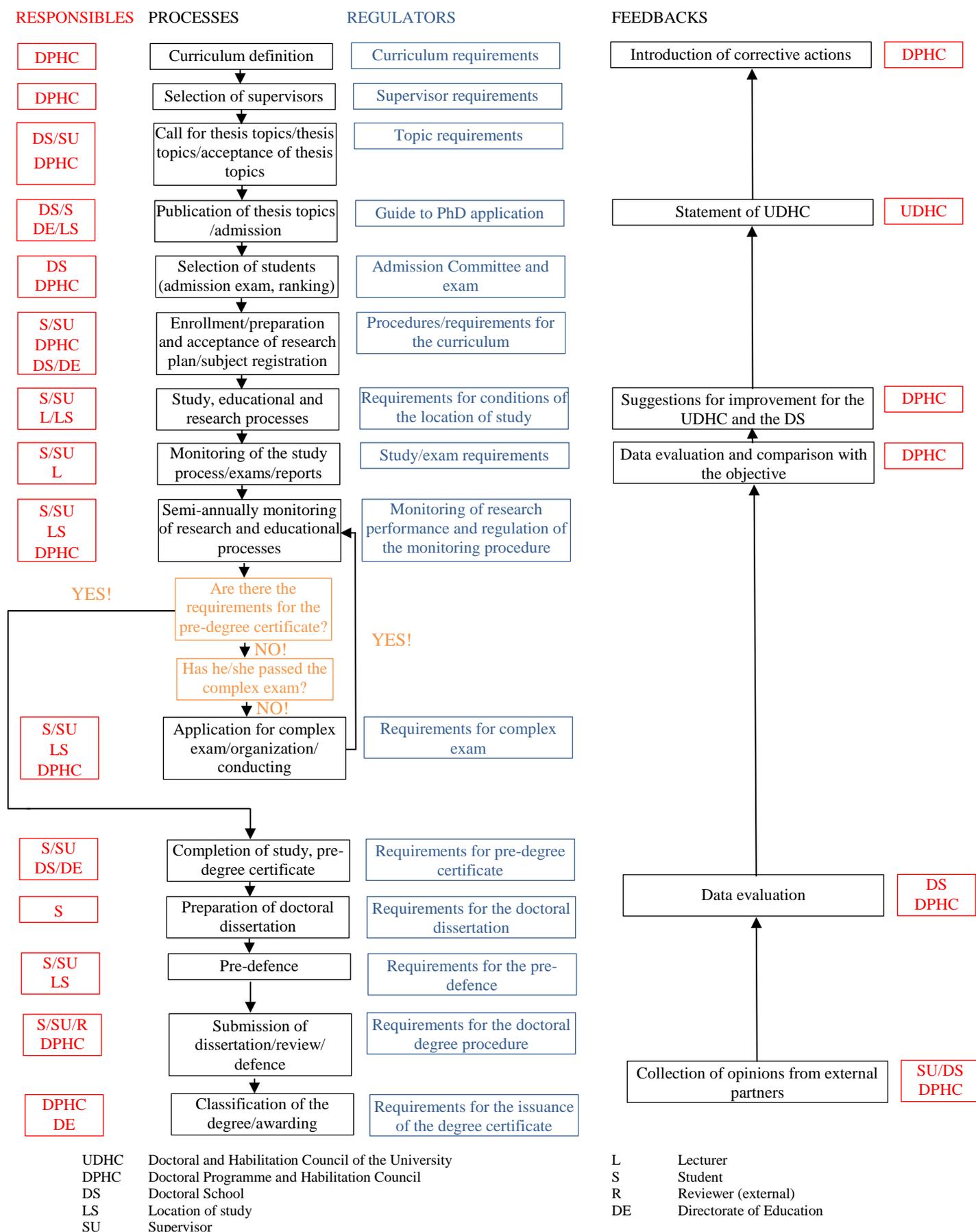


Figure 4. Processes and responsible persons of the doctoral training

### ***3.2. Process and compliance regulation of the doctoral training***

#### ***3.2.1 Requirements for the DPHC***

The requirements for the election, and the determination of tasks, responsibilities and the operation of the DPHC are contained in the Rules and Regulations of the DSCES.

#### ***3.2.2. Selection of the lecturers and supervisors of the DSCES***

The provisions relating to the selection of the head, core members, lecturers, supervisors and doctoral students of the DSCES are contained in the Rules and Regulations of the DSCES.

#### ***3.2.3. Curriculum of the DSCES***

The provisions and content of the curriculum developed by the DSCES and accredited by the Hungarian Accreditation Committee may only be modified in accordance with and in harmony with the accreditation organization guidelines. Modifications may be made in the following cases:

- a) at the suggestion of the Hungarian Accreditation Committee;
- b) if the DPHC considers necessary corrective actions on the basis of the satisfaction survey of the participants;
- c) if the education of one of the subjects included in the curriculum cannot be arranged within the University, the DPHC proposes the employment of an external lecturer or the inclusion of a suitable substitute subject into the curriculum;
- d) inclusion of educational content/subjects corresponding to the rapid development of the science into the curriculum.

#### ***3.2.4. Announcement, acceptance and publication of thesis topics***

Within the doctoral training of the DSCES, thesis topics may only be announced in research topics that are included in the objectives of the DS, belong to the research field and correspond to its specified main directions. In their selection, the declared research areas of the core members and of other DSs of the University must be taken into consideration. If the possibility arises that a proposed thesis topic belongs to another DS, its publication and classification may take place on the basis of consultation between the two affected DPHCs, or, if so authorized, between the heads of the two DSs. The resolution of disputed cases must be reported to the UDHC in the form of minutes. Other formal and organizational provisions relating to the announcement, acceptance, and publication of thesis topics are contained in the Rules and Regulations of the DSCES.

#### ***3.2.5. Admission procedure for doctoral students***

The requirements relating to the admission procedure are contained in the Rules and Regulations of the DSCES. The minimum admission scores and the students proposed for admission are submitted by the head of the DSCES to the UDHC for approval on the basis of the proposal and minutes of the Admission Committee. The minutes of the admission examination are prepared by the secretary of the DS and authenticated by the Chair of the Admission Committee. For admission to the DS, a score exceeding 50% of the obtainable score must be achieved. The scores that may be awarded on the basis

of the various performance parameters are determined by the UDHC.

### 3.2.6. The educational and the research process

The formal part of the educational process, that is, the subjects, the requirement for preparing an individual curriculum, and the credit-based performance requirements, are contained in the curriculum and in the Rules and Regulations of the DSCES. Documentation of performance takes place with the help of grade books (NEPTUN), written materials and minutes of semester topic reports, and research plans. The written documents must be authenticated by the signature of the supervisor, while the minutes must be authenticated by the lead professors of the main doctoral research directions. The minutes must also contain an assessment of the proportional fulfilment of the doctoral student. The supervisor makes a declaration on the educational performance of the doctoral student and on its recognition by study credits, in which the doctoral student participates in teaching. Performance in the field of research that may be recognized by study credits is submitted by the supervisor on the basis of research documents submitted to the DPHC (articles, conference abstracts, etc.) and is certified by the head of the DS. The minimum number of publications to be achieved is contained in the Rules and Regulations of the DSCES. If a doctoral student carries out his or her research (and teaching) activity not at the University of Pannonia but at another institution, then, in addition to the external supervisor, he or she must also have a co-supervisor employed at UP who ensures the enforcement of the norms of the DSCES.

### 3.2.7. Submission and defence of the doctoral dissertation, issuance of the degree certificate

Before submission, the doctoral dissertation must be preceded by an internal workplace debate, which serves the role of a professional and scientific preliminary review with the purpose of correction before final submission. The organization of this is the task of the organizational unit where the doctoral student carried out the research work. In order to ensure the publicity of the pre-defence, the academic organization operating in the scientific field (academic working committee) may, upon request, undertake it as a co-organizer. The dissertation to be admitted to the pre-defence must be reviewed by two reviewers, at least one of whom may not be in employment with the University of Pannonia, and no other reason for conflict of interest may exist in relation to that person. Minutes and an attendance sheet must be kept of the pre-defence, and the persons present holding a PhD or a higher scientific degree declare by majority vote whether the dissertation may be submitted. The minutes are authenticated by the chair conducting the defence and sent to the DPHC. The submission, defence and evaluation of the doctoral dissertation, and the issuance of the degree certificate are contained in the Doctoral Rules of the University of Pannonia.

### 3.2.8. Evaluation of the doctoral training and corrective procedures

The methods and rules serving to measure the efficiency of the education and the research are determined by the DPHC. On the basis of the evaluations to be carried out accordingly, as well as the satisfaction surveys of the participants (doctoral students in the 4th semester and after graduation, lecturers after graduation, and employers on an occasional basis), the DPHC determines and implements quality improvement actions, monitors their fulfilment, and evaluates the results achieved.

#### 4. Quality regulation of the DSCES

The leadership of the DSCES considers continuous quality improvement to be a basic principle. To this end, the leadership intends to implement the following main activities:

- continuous improvement of the value system of the University and the students;
- SWOT analysis of the DSCES based on the opinions of those interested in the DS;
- surveying and monitoring the satisfaction of stakeholders, especially doctoral students, employers, and supervisors, and handling complaints;
- selecting and continuously monitoring the basic quality indicators characterizing the quality of the DSCES;
- analysing the data, indicators, and information obtained through SWOT analysis, satisfaction surveys, and those related to quality;
- identifying and implementing opportunities for quality improvement.

In order to implement the above, we continuously establish and develop:

- the system of management review for quality matters;
- the system of internal quality audits;
- the system of quality-related training;
- the system of satisfaction surveys.

Additional tools of quality assurance:

- DPHC meetings convened for current matters (comprehensive examination and complex exam, as well as the composition of the defence committee, thesis topic);
- annual evaluation of reports of the doctoral students;
- evaluation DPHC meetings held at least once a year, at which the DPHC evaluates the work of the previous year and designates further tasks;
- with the assistance of the student representative of the DPHC, the opinion of doctoral students on the training is requested annually. Actions are formulated on the basis of these opinions;
- regular updating of the website of the DS, at least monthly, through which information reaches all lecturers and students of the DS;
- based on the experience of the past ten years, the review of the operation of the DS periodically becomes necessary (due to change of leadership, accreditation, or university reorganization). In such cases, the DPHC evaluates the operation of the DS and formulates actions.

The DPHC of the DSCES adopted this on 31 August 2020.