

Quality Assurance Regulations of the Doctoral School of Earth Sciences

Quality Assurance Plan, Quality Policy, Quality Objectives

(Valid from 1 December 2022)

The Doctoral School of Earth Sciences of the University of Pécs (in Hungarian: Földtudományok Doktori Iskolája, in English: Doctoral School of Earth Sciences, hereafter DSES) has established its Quality Assurance Regulations with the aim of facilitating the quality review of the training provided at the Doctoral School (DS) and establishing the possibility of quality improvement.

The Quality Assurance Regulations summarize all the tasks and tools that are necessary for the continuous improvement of the quality level of the processes taking place at the Doctoral School of Earth Sciences.

The purpose of establishing the DSES' quality assurance system is:

- to raise and maintain the quality of research/training,
- to contribute to the high-quality performance of the social obligations of the University of Pécs,
- to increase the satisfaction of students, lecturers, researchers, university staff, employers of graduates, organizations, institutions and partners associated with the Institution; to meet the maximum needs.

The Doctoral School of Earth Sciences considers the following when developing and operating its quality assurance system:

- The provisions of the Higher Education Act in force at all times.
- The quality assurance system of University of Pécs (in Hungarian: Pécsi Tudományegyetem, PTE, hereafter: UP).
- The requirements of the Doctoral Regulations (DR) of the University of Pécs and the regulations of the Doctoral Board of Sciences, hereafter DBS (in Hungarian: Természettudományi Doktori Tanács, TDT, hereafter: DBS) regarding doctoral training and degree acquisition.
- The positions and proposed criteria of the Hungarian Accreditation Committee (in Hungarian: Magyar Akkreditációs bizottság, MAB, hereafter: HAC).
- International recommendations regarding the quality assurance system, with particular regard to the European standards for quality assurance in higher education, the Bergen document adopted in 2015: "Standards and Guidelines for Quality Assurance in the European Higher Education Area"

Quality assurance and the quality development based on this activity are the duty of all lecturers, researchers and employees, in accordance with the University's quality policy. Everyone is obliged to perform their job duties at a level that ensures that the results of DSES are always in line with the objectives that have been formulated in the university's quality policy.

1. The Doctoral School Council

The Doctoral School Council formulates the principles related to quality assurance and makes the decisions that ensure the operation based on these principles.

The Doctoral School Council (in Hungarian: Doktori Iskola Tanácsa, in English: Doctoral School Council, hereafter: DSC) is automatically composed of active and emeritus core members accredited by the Hungarian Academy of Sciences. In addition to the core members, students delegate one person to the council. The three programs of the DSES (geopolitics, human geography, physical geography) are represented in the DSC by a non-core member lecturer/researcher. The non-core member lecturer/researcher is decided by the core members, upon the proposal of the heads of the programs, by secret ballot. Each member of the DSC has the right to vote. The composition of the DSC's personnel allows it to consider the proposals of students, supervisors and lecturers when making decisions within its competence.

2. Application of instructors and supervisors to the Doctoral School

Supervisors significantly determine the quality and efficiency of doctoral training (ratio of students who obtain a degree).

The professional background of the supervisors and instructors applying to the DSES is evaluated by the Doctoral School Council, and based on this, the decision is made to accept the application. The acceptance of the application is approved by the Doctoral Council of Natural Sciences. The evaluation considers previous research and university teaching activities: lectures, practical training, supervision of diploma and thesis, and supervision of scientific student work. During the evaluation, the DSC examines the complete publication list of the instructor/researcher. When applying, the applicant instructor/researcher must also submit a proposal for a research topic and/or course, which is also evaluated by the DSC.

The instructors and supervisors of the DSES appear in the database of the National Doctoral Council, which is also a guarantee of maintaining quality through publicity. The DSC reviews the scientific and supervisory activities of the lecturers and supervisors annually.

3. Announcement of doctoral topics

To achieve new research results, serious personal and material conditions are required. It is important that only topics for which we can provide these conditions appear in the Doctoral School portfolio.

Doctoral topics can be announced by the supervisors of the DSES, but the DSC evaluates all topics and only contributes to the announcement of those for which the intellectual and infrastructural background of the research is ensured and considers it realistic that a dissertation summarizing the results of the research can be submitted within one year after the four-year training.

A special expectation for those announcing topics is active research activity: the indicators of the scientific publications of the five years preceding the announcement of the topic exceed the publication requirements of the doctoral school for obtaining a degree. The scientific performance of the supervisors is reviewed annually by the DSC based on the database of the National Doctoral Council.

The thesis advisor becomes the thesis advisor whose student applying for the announced topic is admitted and enrolls in the doctoral school. Each doctoral student is assisted by a thesis advisor. The thesis advisor has full responsibility for managing and supporting the doctoral student working on the topic, their research work, and the doctoral candidate's preparation for obtaining a degree. Co-thesis advisor is possible in the case of training conducted within the framework of cooperation between international or domestic institutions, or in interdisciplinary research topics. In the case of co-thesis advisor, at least one thesis advisor is a lecturer/researcher at the University of Pécs. A thesis advisor can have a maximum of six doctoral students or doctoral candidates at the same time.

4. Admission to doctoral training

The admission system must be designed so that students are aware of the expectations and the criteria for admission to the Doctoral School.

Admission to doctoral training can only be obtained by applying for a topic advertised nationally on www.doktori.hu, after a successful admission procedure. The admission procedure, as well as the points taken and those that can be obtained during the admission procedure, are contained in the DSES regulations. With the points obtained during the admission procedure, the admission committee evaluates the proficiency in the chosen topic (the

candidate's professional knowledge, the plans related to the research to be carried out during the doctoral training, and their justification).

The condition for participation in the admission exam is the written assurance of the applicant's readiness to accept the position (recommendation) by the supervisor.

The DSC student representative will be invited to the admission exam.

5. Subjects of the doctoral training

The student must complete his/her dissertation within five years of admission; therefore, it is necessary to transfer knowledge that is focused on the training and research phases, closely related to the research plan and well-utilized. The topics of the courses and the assessment system must be designed so that the student can carry out active research work already during the training phase.

The DSC decides on the acceptance of subjects into the training and the renewal of the topics. The DSES training plan and an overview of the topics of the subjects can be found on the DSES website. The topics must be reviewed at least every three years. The head and secretary of the DSES inform students about the courses that can be taken in Neptun at the beginning of each semester, and the DSES secretary also draws students' attention to them in e-mails during the semester. Study credits can only be obtained in the first two years of the doctoral training, in the "training and research phase".

The supervisor primarily provides assistance in selecting the courses taken by the doctoral student. The purpose of the chosen courses is, on the one hand, to provide assistance in preparing for the theoretical part of the complex exam, and on the other hand, to enable the doctoral students to acquire the specific knowledge necessary for their research work. The doctoral student can choose not only from the courses announced by the DSES. We encourage students to also complete courses that are relevant to the research plan announced by other doctoral schools of UP or doctoral schools of other universities. Seminars belonging to the individual programs are an important part of the training. On the one hand, well-known domestic and foreign researchers give lectures at these seminars, and on the other hand, students regularly report on the progress of their own research, so they can also receive assistance from the instructor leading the seminar.

A regularly updated, public information about the current training plan of the DSES, its subjects and instructors can be found on the DSES website.

DSES instructors may only be lecturers and researchers with academic degrees who are deemed suitable by the DSC.

DSC supports students in the research and dissertation stages to participate in university education for one course relevant to their research topic. Students are awarded credit(s) for participating in education and teaching.

6. Research work

Research work is decisive in terms of quality assurance, as both publication and the acquisition of the PhD degree are based on it.

The research work of a doctoral student is managed with full responsibility by the supervisor. The topics and methods of research conducted at DSES are obviously different. However, a common requirement is that the research carried out by a doctoral student must be of such a standard that it can be published in an international scientific journal and presented at international conferences.

The DSES regulations define the expectations regarding research work carried out during doctoral training. DSES strives to ensure that doctoral students give a presentation on their research results at least one professional conference per year, and financially supports it. We expect students to actively carry out research work during the training and research phase and to present their results at least one conference. The doctoral school helps, to the extent possible, to ensure that the student reaches a foreign university/institute during their training where research related to their topic is being conducted. During research, we pay special attention to the consistent enforcement of scientific ethics requirements and their monitoring, which is partly the task of the supervisor, but this is also discussed in the presentations to be held at seminars.

The entire infrastructure of the Institute of Geography and Earth Sciences of the University of Pécs is available to all doctoral students for successful research work. DSES contributes to the development and operation of the infrastructure from the state funding allocated for doctoral training. The DSES is the state aid for doctoral training decided by the Faculty Council of the Faculty of Natural Sciences (FNS).

DSES involves students in research projects at the faculty, where possible. In addition to providing an opportunity to supplement the scholarship, the student can also gain experience in carrying out project work in a research group.

7. Monitoring

Monitoring provides continuous feedback on the quality of the training and the progress of students in the training.

Monitoring the academic and research performance and progress of students is primarily the responsibility of the supervisor.

Objective evaluation of student performance is result-oriented. At the end of each semester, students upload (in the specified format) to the website operated by DSES the data on their participation in conferences, published or accepted (in the case of final-year students) scientific papers, and their participation in education and scientific projects. Credits are awarded for these achievements, in accordance with the criteria specified in the DSES regulations. On the website, students can monitor DSES's evaluation, comments, and earned credits. Students also present and discuss their research results orally at professional seminars. In the case of scientific articles, DSES particularly supports publication in prestigious international journals.

During the doctoral training, at the end of the fourth semester, as a conclusion of the training and research phase and as a condition for starting the research and dissertation phase, a complex exam must be passed, which measures and evaluates the academic and research progress. The complex exam consists of two main parts: in one part, the examiners assess the candidate's theoretical preparation, and in the other part, they report on the candidate's scientific progress. The doctoral student may only apply for the fifth semester of the doctoral training after successfully completing the complex exam.

Students who are about to take the complex exam and those in their final year present their research results in a joint seminar, in the form of an oral presentation.

The DSES notifies doctoral candidates who have obtained their pre-degree certificate (absolutorium) in writing about the content (e.g. publication) and formal requirements (e.g. uploading publications to the Hungarian Archive of Scientific Works (MTMT as the Hungarian acronym) that must be met in order to start the degree-granting procedure. The monitoring activity also includes an overview of the training provided at the DSES. Once a year, the DSC reviews the courses related to the training, the proportion of students who successfully complete the complex exam and obtain the absolutorium and the PhD degree.

8. Publication requirement for obtaining a PhD degree

The most important content output of doctoral training is publication, which also affects the graduate's later scientific career. PhD students are key players in the research activity at the institution. Therefore, the quality of the publication also characterizes the research work at the institution.

The doctoral school's degree requirements are contained in the DSES regulations, which were approved by the Doctoral Council in Natural Sciences. The requirements are based on the SCIMAGO Ranking. When creating the requirements, DSC also considered the specificities of the various earth science disciplines. Regardless of the discipline, each student must publish at least one article in one of the journals listed on the SCIMAGO list that are relevant to the field. Furthermore, each student must have at least one first-authored article.

The requirements system prefers publication in prestigious international journals.

9. Degree-granting procedure

The degree-granting process must be transparent, professional control and impartial evaluation must be ensured.

During the degree-granting procedure, DSES follows the provisions of its regulations and the regulations of the TDT (in Hungarian: Természettudományi Doktori Tanács, in English: Doctoral Board of Sciences, hereafter DBS). After completing the complex exam, the student enters the degree-granting stage, so applying for the complex exam is also applying for the degree-granting procedure.

Before submitting the doctoral dissertation, the student must defend it at a so-called home defence. In the debate, the dissertation is qualified by two opponents with at least a doctoral (PhD) degree. The student presents his/her results before a five-member committee, at least two of whose members are not employees of UP. Based on what has been said, the members of the committee and the lecturers and researchers with PhD degrees participating in the lecture qualify the dissertation. The course of the debate and, in particular, the opinions and findings related to the modification of the dissertation must be recorded in minutes. The appendices to the minutes are the opponent's opinions. If the score given in the evaluation does not reach 60% of the possible points, the preliminary debate must be conducted again.

During the steps of obtaining the degree, the DSES ensures the fulfilment of its advertising obligations:

- the complex examination/preliminary debate/defence is announced on the website of the doctoral school, on the bulletin boards of the UP, the Faculty of Sciences, the Institute of Geography and Earth Sciences, and in an electronic circular to the accessible professional community,
- the doctoral defence is announced in the National Doctoral Database, on the website www.doktori.hu.

When conducting the public debate/defence, the DSES follows the provisions of the Doctoral Regulations and the DBS regulations. The organization of the defence is the responsibility of the DSES.

Upon the announcement of the defence, the dissertation, the thesis booklet in Hungarian and English, and the candidate's publication list in MTMT will be

made public on the website of the DSES and the National Doctoral Council database www.doktori.hu. Upon the announcement, the dissertation and the thesis booklet will be placed in the electronic archive (PEA) of the UP Library. This is the responsibility of the PhD coordinator. A copy of each dissertation and the thesis booklet will be placed in printed form in the PTE DSES Library.

After the dissertation is submitted, the members of the Evaluation Committee will receive the dissertation and the thesis booklet in both printed and electronic form. The members of the Evaluation Committee will receive the opponent's opinions after the receipt of both reviews, and the candidate's responses to them in electronic form no later than one week before the defence. When the public debate is announced, the dissertation and the thesis booklet become public on the website www.doktori.hu, which is also accessible via the doctoral school's website.

The dissertation sent to the reviewers cannot be modified afterwards. If the Review Committee objects to professionally incorrect statements or does not accept thesis points, this will be noted in the committee minutes.

**The Council of the Doctoral School of Earth Sciences
adopted it at its meeting on October 18, 2022.**

The quality objective of the Doctoral School of Earth Sciences for the 2025/2026 academic year:

During the academic year, we will review and modify the list of courses in the training and research phase, taking into account student suggestions.

**The Council of the Doctoral School of Earth Sciences
discussed and approved the set quality objective at its meeting on
May 8, 2025.**