

Full wording of **Internal Regulation**

No. 9/2021

Internal Quality Assurance System for Doctoral Studies at the Slovak University of Technology in Bratislava

as amended by Amendment No. 1

Date: March 1, 2023



After the deliberation of Amendment No. 1 to the Internal Regulation No. 9/2021 from March 15, 2021 "Internal Quality Assurance System for Doctoral Studies at the Slovak University of Technology in Bratislava" by the Scientific Board of STU from December 14, 2022, and after the approval by the Academic Senate of STU on March 1, 2023, and in accordance with Article 12 (2) of the Internation Regulation 9/2021 "Internal Quality Assurance System for Doctoral Studies at the Slovak University of Technology in Bratislava" in connection with Article 10 (3) of the Rector's Directive 4/2013-SR "Rules for issuing internal regulations at the Slovak University of Technology in Bratislava", the Rector of STU

is issuing

the following full wording of internal regulation
Internal Quality Assurance System
for Doctoral Studies
at the Slovak University of Technology in Bratislava
as amended by Amendment No. 1 from March 1, 2023

Slovak University of Technology in Bratislava, Vazovova 5, Bratislava

Bratislava, March 15, 2021

No.: 9/2021

Following the commentary from the Academic Senate of the Slovak University of Technology in Bratislava of March 1, 2021 and approval by the Scientific Board of the Slovak University of Technology in Bratislava of March 15, 2021 and in accordance with § 15 (1) (b) of Act No. 131/2002 Coll. on Higher Education Institutions, and on amendments and supplements to certain acts, as amended (hereinafter referred to as the "Higher Education Institutions Act"), the Slovak University of Technology in Bratislava (hereinafter referred to as "STU" or "University")

is issuing

the following complete wording of the internal regulation

Internal Quality Assurance System for Doctoral Studies at the Slovak University of Technology in Bratislava

PART I RECITALS

Article 1

(1) The Internal Regulation "Internal Quality Assurance System for Doctoral Studies at the Slovak University of Technology in Bratislava" is a part of an internal quality assurance system for university education at the Slovak University of Technology in Bratislava in accordance with § 15 (1) (b) of the Higher Education Institutions Act.

∷∷ S T U

- (2) The Slovak University of Technology in Bratislava strives to be a recognized, research-oriented technical university of international importance. STU's mission is to acquire and spread new knowledge through scientific research, research and creative engineering and artistic activities, and to educate the young generation.
- (3) The policy focused on quality assurance of STU's university education is based on a long-term University development plan. STU's internal quality assurance system of university education (hereinafter referred to as the "STU's internal quality system") and its implementation are based on the requirements of European standards and guidelines contained in the "European Standards and Guidelines for Quality Assurance in the European Higher Education Area" (ESG). The level of STU's educational activities is regularly assessed in a detailed educational activities assessment report for the particular academic year. The assessment report is discussed by all University academic and self-governing bodies.
- (4) A doctoral study programme (hereinafter also referred to as "doctoral studies") aims at acquiring information based on the current status of scientific and artistic knowledge and, in particular, on the student's own contribution to it, which is a result of scientific research and individual creative activities in the area of science or technology or independent theoretical and creative activities in the area of art.
- (5) The implementation of doctoral studies is one of STU's priorities; with its nature and connection to scientific and research and creative artistic activities it has a specific position in the education process. It is therefore necessary to ensure its quality in a special internal regulation which forms an integral part of the STU's internal quality system in accordance with the Higher Education Act and Act No. 269/2018 Coll. on Quality Assurance of Higher Education and on Amendment and Supplementation to Act No. 343/2015 Coll. on Public Procurement and on Amendment and Supplementation to Certain Acts, as amended (hereinafter referred to as the "Act on Quality").
- (6) As a part of STU's internal quality system, the present Internal Regulation, determines the qualitative requirements for delivery of doctoral study programmes at STU both in the area of institutional environment and performance of doctoral studies. In the institutional area, it determines qualitative requirements for the person responsible for delivery of the doctoral study programme (hereinafter also referred to as "study programme director" or "study programme co-director"), scope of action of a specialization committee and a programme committee, tutor and consultant. In the area of admission to doctoral studies, performance and proper termination of doctoral studies it determines the requirements imposed on the candidate, the doctoral studies quality, emphasizing the internationalization of doctoral studies and a qualitative level of the doctoral student's learning outcomes.



PART II INSTITUTIONAL ENVIRONMENT QUALITY

Article 2 Education

- (1) The third-degree university education may be provided only in accredited study programmes. High-quality scientific or artistic work which forms a basis of education needs to be a standard in each study programme. The relationship between university education and scientific and research and creative artistic activities is also based on implementation of the results of such activities in university education.
- (2) Education in doctoral study programmes is provided according to individual study plans of doctoral students under their tutors' leadership. Education quality largely depends on the quality of scientific and research and creative artistic work; it is therefore necessary that the individual study plans of doctoral students are bound to the scientific and research and creative artistic activities of tutors and training workplaces.

Article 3 Study programme director

- (1) A study programme director, and the study programme co-director if designated for the study programme, is a university teacher who, with their expertise and personality, guarantees the level and quality of education in the relevant study programme. In cooperation with teachers responsible for profile courses, workplaces and University boards, the study programme director looks after the quality of content and delivery of the educational process in the study programme directed by the study programme director.
- (2) A study programme director and co-director may only be persons who currently work at STU in the particular specialization at the functional position of professor for a determined level¹.". weekly working time and at the same time do not bear the main responsibility for the implementation, development and quality assurance of the study programme at another higher educational institution. They are recognized professionals in the specialization in which they guarantee doctoral studies, while the results of their creative activities demonstrably achieve at least an important international level¹.
- (3) A study programme director and co-director shall in particular:
 - a) direct the production, updating and quality of documentation of the study programme for the purposes of the accreditation process;
 - together with the head of the workplace where the study programme directed by them is delivered, guarantee the quality of staffing of the study programme by contributing to the creation of suitable conditions to increase the personal growth of potential tutors, mainly from among University teachers and research workers;
 - c) propose tutors for the study programme directed by them to the chairman of the specialization committee;

¹ Article 2 of Internal Regulation No. 5/2021 "Rules for the Staffing of Study Programmes at the Slovak University of Technology in Bratislava".



- d) guarantees the quality of delivery of the study programme in accordance with the standards and level of scientific and artistic knowledge in the particular specialization;
- e) regularly checks the process and quality of provision of education in the study programme in cooperation with the study programme board, the programme committee, the specialization committee, the University scientific board, the faculty scientific board or the faculty scientific and artistic board and STU's Internal Quality Assurance System Board;

Article 4 Specialization committee and programme committee

- (1) The procedure for establishing a specialization committee of specializations and programme committees of doctoral study programmes and for appointing its members, the position and activities of specialization committees and programme committees in the study preparation and delivery process, and in preparing and defending dissertation theses in doctoral study programmes and the rules of organisation and discussion of specialization committees and programme committees are governed by the Rector's Directive Specialization Committee of Doctoral Study Programmes at the Slovak University of Technology in Bratislava.
- (2) The specialization committee and programme committee shall, in particular:
 - a) supervise the performance of study programmes falling under the scope of its powers, guarantee the quality and international level of content of the provided study programmes and the quality of tutors;
 - b) make sure that education of doctoral students is performed in accordance with the Code of Ethics of STU Employees and the Code of Ethics of STU Students;
 - c) propose the structure of admission committees, dissertation examination committees and examination committees for dissertation theses defence;
 - d) propose opponents for written theses for dissertation examinations and dissertation theses;
 - e) propose dissertation thesis tutors;
 - f) monitor the quality and international level of topics of dissertation theses conducted by tutors;
 - g) monitor the quality of content of individual study plans of doctoral students;
 - h) regularly assess performance of individual study plans of doctoral students.

Article 5 Tutors

(1) A tutor for a respective STU specialization may only be an STU teacher who performs scientific or artistic activities in the relevant specialization at the functional position of professor or at the functional position of associate professor. If approved by the University scientific board, the faculty scientific board or the faculty scientific and artistic board, tutors may be other experts with a scientific qualification degree I or IIa, or their equivalent.



- (2) Tutors for topics announced by an external educational institution may be tutors approved by such institution. The external educational institution shall provide the University scientific board, the faculty scientific board or the faculty scientific and artistic board with scientific/artistic and pedagogical characteristics of such tutors.
- (3) Tutors for topics announced by a faculty or other part of STU, which is not a faculty, shall be employed by STU. Tutors for topics announced by an external educational institution shall be employed by such institution.
- (4) Tutors shall be liable for the quality and international level of the topic of the dissertation thesis as well as for the quality of performance of the doctoral student's individual study plan, and shall be able to:
 - a) arrange funds for supporting research and publication activities of the doctoral student;
 - b) ensure involvement of the doctoral student in international activities in any of the following forms - demonstrable active involvement in an international scientific and research project, active participation in at least two significant international events or an internship at foreign academic or research workplaces lasting for at least 4 weeks:
 - c) demonstrate that he/she meets the minimum criteria of the STU at least for filling the functional position of associate professor in the area of outputs of creative activities, responses and scientific work required for a period of five years in the relevant field of the habilitation and inauguration procedure².
- (5) The tutor shall actively participate in the announcement of dissertation thesis topics offered by the University or faculty to candidates for doctoral studies.
- (6) The rights and other duties of the tutor shall be regulated by the STU Study Regulations. A tutor shall not normally mentor simultaneously more than five doctoral students in the regular period of studies of the study programme.
- (7) The function of the tutor shall terminate
 - a) by resigning
 - b) by terminating employment with the employer where the tutor works as a tutor,
 - c) as a result of a decision of an external educational institution, in the case of a tutor proposed by such institution
 - d) by revoking the rights to provide doctoral studies at STU in the respective specialization,
 - e) on death or on being declared dead.
- (8) If the function of the tutor terminates before the defence of the doctoral student's dissertation thesis, the specialization committee shall appoint a new tutor for the respective dissertation thesis
- (9) STU keeps records of tutors in the academic information system.

² Rector's Directive No.: 1/2021 - SR "Rules for determining the minimum criteria for obtaining the title of associate professor and professor at the Slovak University of Technology in Bratislav



Article 6 Consultants

- (1) A consultant is a person with third-degree university education who is a professional in the relevant specialization or a similar field of knowledge which corresponds with its content to the topic of the dissertation thesis in which the consultant will work. In the case of an artistic specialization, a person without any third-degree university education may also be a consultant.
- (2) A consultant is able to supplement a tutor's professional work in a specific part of studies; however, the tutor shall remain primarily responsible for the quality and delivery of doctoral student's individual study plan.
- (3) A consultant shall be appointed by the dean of the faculty following a tutor's proposal and with the consent of the chairman of the specialization committee. If the consultant is neither an STU employee nor from an external educational institution, the scope of work shall be specified in an agreement on cooperation between the consultant's employer or the consultant on the one hand and STU or the external educational institution on the other hand.

PART III QUALITY OF DOCTORAL STUDIES

Article 7 Admission procedure

Independent scientific or artistic creative activities of doctoral students form an inseparable part of delivery of a doctoral study programme. Candidates' abilities and prerequisites for the study of the relevant doctoral study programme in the following areas are checked during the admission procedure with the aim of ensuring a high level of education and also a high doctoral study completion rate:

- (1) the study results achieved in the previous second-degree studies, expressed as a weighted grade point average,
- (2) motivation for studying,
- (3) ability to deal with tasks creatively (e.g. by participating in projects),
- (4) ability to publish the results of their work in the form of contributions in journals or collections,
- (5) ability to present the results of their work by participating in conferences and competitions in their home country and abroad,
- (6) speaking English at an appropriate level,
- (7) personal responsibility

Article 8 Individual study plan

(1) The quality and content of individual study plans help ensure the quality and high level of education of doctoral students. Tutors shall be responsible for the quality and the required level of study and individual study plans. Individual study plans shall be



- approved by the chairman of the specialization committee. Doctoral students shall be actively involved in preparation of their individual study plans.
- (2) The content and structure of the individual study plan of the doctoral student reflects the activities, knowledge, skills and competences specified in the profile of the graduate of the study programme. To ensure their performance, milestones and criteria are defined in the study plan and are regularly checked. Studies consist of a study part and scientific part; their content and credit proportion is governed by the University's internal regulations. Organisation of studies in doctoral study programmes at STU shall be compliant with the provisions of the STU Study Regulations.

Article 9 Assessment of the quality of doctoral students'studies

- (1) Doctoral studies are conducted according to the credit system of study in line with Section 54 (2) and Section 62 of the Higher Education Act, with the decree of the Ministry of Education of the Slovak Republic No. 614/2002 Coll. on the Credit System of Studies, as amended, and according to the rules specified in the STU Study Regulations.
- (2) The quality of doctoral studies shall be assessed during their delivery and after their proper completion. When assessing the course of doctoral studies, the study part and the scientific part of doctoral studies shall be assessed separately, focusing in particular on the course of the dissertation examination, the preparation and course of the dissertation thesis defence, the achieved publication outputs, responses and international activities of doctoral students.
- (3) The assessment of the doctoral student and the level of fulfilment of his/her individual study plan shall be carried out by the tutor once a year (usually at the end of the academic year) and submitted to the specialization committee for approval.
- (4) The quality of performance of doctoral studies shall be annually assessed by the specialization committee in cooperation with the study programme director and the study programme co-director, if designated for the study programme, the study programme board, the University scientific board, the faculty scientific board or the faculty scientific and artistic board. Documented information about doctoral study graduates and about the resulting assessment of quality of their publication outputs shall be discussed by the specialization committee and the University scientific board, the faculty scientific board or the faculty scientific and artistic board.

Article 10 Assessment of the quality of doctoral students' outputs

(1) Publication and artistic activities of doctoral students form an integral part of doctoral studies. Minimum criteria applicable to publication and artistic performance of doctoral students in accordance with Annex 1 hereto shall be met for proper completion of doctoral studies. Specialization committees may submit other requirements for doctoral students in the relevant specialization and study programme



- to the University scientific board, the faculty scientific board or the faculty scientific and artistic board for approval.
- (2) In individual cases where it is not possible to meet the minimum criteria due to a contractual confidentiality requirement regarding the results of a dissertation thesis, the specialization committee may, at the tutor's request, decide to modify the minimum criteria in an appropriate manner.

PART IV TRANSITIONAL AND FINAL PROVISIONS

Article 11 Transitional provisions

Any doctoral studies started before the beginning of the academic year 2021/2022 shall be governed by the then-current regulations.

Article 12 Final provisions

- (1) The present Internal Regulation may only be amended and supplemented in the form of numbered amendments hereto after having been commented on by the STU Scientific Board and approved by the STU Academic Senate.
- (2) The Rector is authorized to issue a valid full wording of this Internal Regulation after any amendment to the Internal Regulation has been issued as referred to in paragraph 1 above.
- (3) Following a proposal by the Rector's, the STU Academic Senate commented on the Internal Regulation on March 1, 2021.
- (4) The Internal Regulation was approved by the Scientific Board of STU on March 15, 2021.
- (5) The STU Scientific Board on the proposal of the Rector expressed its opinion on the Amendment No. 1 hereto on December 14, 2022.
 - (6) Amendment No. 1 hereto was approved by the STU Academic Senate on March 1, 2023.
 - (7) Amendment No. 1 hereto comes into force on the date of its approval by the STU Academic Senate and into effect on March 6, 2023. Amendment No. 1 hereto comes into force on the date of its approval by the STU Academic Senate and into effect on March 6, 2023.

prof. MSc. Marián Peciar, PhD. Chairman of the STU Academic Senate Dr. h. c. prof. h. c. prof. Dr. MSc. Oliver Moravčík Rector



Annex 1: Minimum output criteria required for successful completion of doctoral studies

The minimum criteria stated in the present Annex to the Internal Regulation represent a necessary condition for the proper completion of doctoral studies. Specialization committee may submit other requirements with which doctoral students need to comply during their studies to the University scientific board, the faculty scientific board or the faculty scientific and artistic board for approval (Article 10 (1) hereof).

For each study programme there are separate publications in relation to which the doctoral student needs to be stated as the first author or have at least a 50% share (marked with grey background colour). As for other publications, it is sufficient if the doctoral student is a coauthor (without background colour).

If a publication is not available at the time when the application for defence of a dissertation thesis is being filed, the doctoral student shall attach a publisher's declaration to the application confirming that the publication has been successfully reviewed and will be published.

Specialization	Study programme	Minimum criteria
Architecture and urbanism	• Architecture	1 publication in a journal in WOS or SCOPUS or artistic performance at least in the category Standard performance of international impact
		1 publication in a journal in WOS or SCOPUS or artistic performance at least in the category Standard performance of international impact
Security sciences	Integrated security	1 publication in a journal in WoS or SCOPUS in Q1–Q3 or 1 registered utility model application/patent related to the dissertation thesis topic ¹⁾
Biotechnologies	BiotechnologyBiotechnologies	1 publication in a journal in WoS or SCOPUS
		2 publications in a journal in WoS or SCOPUS, out of that at least 1 in WoS in Q1–Q3
Economics and management	Industry economies and management	1 publication in a journal in WoS in Q1–Q3
		2 publications in a journal in WoS or SCOPUS



Specialization	Study programme	Minimum criteria
Electrical engineering	Physical engineering	1 publication in a journal in WoS in Q1–Q4
		1 publication in a journal in WoS in Q1–Q4
	Measurement technology	1 publication in a journal in WoS in Q1–Q4 or SCOPUS in Q1–Q3
	Cosmic engineeringSpace engineering	1 publication in a journal in WoS in Q1–Q4
		1 publication in a journal in SCOPUS in Q1–Q4
	 Electronics and photonics Power engineering Nuclear energy	1 publication in a journal in WoS in Q1–Q4
Geodesy and cartography	Geodesy and cartography	1 publication in a journal in WoS or SCOPUS in Q1–Q4
		1 publication in a journal in WoS or SCOPUS
Chemical engineering and technology	Chemical engineering	2 publications in a journal in WoS in Q1–Q3
	All with the exception of the Chemical Engineering study programme	1 publication in a journal in WoS in Q1–Q3
Chemistry	All study programmes	2 publications in a journal in WoS in Q1–Q3
Informatics	Applied informaticsTelecommunication	1 publication in a journal in WoS or SCOPUS in Q1–Q4



Specialization	Study programme	Minimum criteria
Cybernetics	 Automation and computerization of processes Automation and computerization of machines and processes Robotics and cybernetics Mechatronic systems 	1 publication in a journal in WoS or SCOPUS in Q1–Q4
	Process management	1 publication in a journal in WoS in Q1
		or
		1 publication in a journal in WoS in Q2–Q3
		1 publication in a journal in WoS in Q1–Q3
Mathematics	Applied mathematics	1 publication in a journal in WoS or SCOPUS in Q1–Q4
		1 publication in a journal in WoS or SCOPUS
Agriculture and landscaping	Landscaping	1 publication in a journal in WoS or SCOPUS in Q1–Q4
		1 publication in a journal in WoS or SCOPUS
Food processing	Foodstuffs chemistry and technology	1 publication in a journal in WoS in Q1–Q3
		1 publication in a journal in WoS in Q1–Q3
Spatial planning	Spatial planning	1 publication in a journal in WoS or SCOPUS in Q1–Q4
		1 publication in a journal in WoS or SCOPUS in Q1–Q4



Specialization	Study programme	Minimum criteria
Building industry	All study programmes	1 publication in a journal in WoS or SCOPUS in Q1–Q4
		1 publication in a journal in WoS or SCOPUS
Mechanical engineering	Industrial management	1 publication in a journal in WoS or SCOPUS in Q1–Q4
		1 publication in a journal in WoS or SCOPUS
	Progressive materials and material design	1 publication in a journal in WoS or SCOPUS in Q1–Q4 or 2 registered publication and artistic performance/patents related to the dissertation thesis topic ¹⁾
	 Mechanical engineering technology and materials Applied mechanics Conveyor machines and equipment Production machines and equipment Process technology Metrology Power machines and equipment 	1 publication in a journal in WoS or SCOPUS in Q1–Q4 or 1 registered utility model application/patent related to the dissertation thesis topic ¹⁾
Arts	• Design	1 publication in a journal in WOS or SCOPUS or artistic performance at least in the category Standard performance of international impact
		1 publication in a journal in WOS or SCOPUS or artistic performance at least in the category Standard performance of international impact

Explanatory notes:

1) Publication in a journal may be replaced with a utility model application/patent only for reasons specified in Article 10 (2) hereof.

Allocation of journals to quartiles (Q1 to Q4) shall be determined in accordance with WoS - <u>Journal Citation Reports Indicators (clarivate.com)</u> or SCOPUS - SCImago Journal Rank (<u>www.scimagojr.com/journalrank.php</u>). If a journal is registered in both databases, the better of the two quartiles shall be used.