BUDAPEST UNIVERSITY OF TECHNOLOGY AND ECONOMICS
Faculty of Chemical Technology and Biotechnology, George A. Olah Doctoral School

Quality Assurance Plan

2026

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1. Relevant Regulations

The Quality Assurance Plan for doctoral education and degree conferral at the George A. Olah Doctoral School (hereinafter: Doctoral School, or DS for short) was developed based on the following documents of the Budapest University of Technology and Economics (BME): BME Code of Doctoral Studies and Habilitation (BME DHSZ); Code of Studies and Exams of BME (BME TVSZ); George A. Olah Doctoral School Rules of Operation; George A. Olah Doctoral School Training Plan; and ESG 2015 (Standards and Guidelines for Quality Assurance in the European Higher Education Area[1]). Below, we outline requirements that partly overlap with and partly go beyond these, without, however, addressing the mandatory quality assurance elements appearing in the relevant legislation (Act CCIV of 2011 on National Higher Education, Government Decree 387/2012 (XII.19.) on National Higher Education, as well as the MAB's decrees regarding doctoral training, and the quality assurance elements appearing in the BME TVSZ). The DS's current Quality Assurance Plan follows the recommendations of the Hungarian Doctoral Council (ODT) in some cases with higher standards than those set forth therein. The DS's Quality Assurance Plan is publicly accessible to the professional and academic community and is available on the DS page of the website of BME's Faculty of Chemical Technology and Biotechnology (VBK) https://www.ch.bme.hu/en/education/PhD/george-a-olah-doctoral-school/rules-and-regulations//) and on the Hungarian Doctoral Council's website (https://doktori.hu/doktori-kepzes/doktori-iskolak/14-george-a-olah-doctoral-school-of-chemistry-and-chemical-technology).

2. Quality Assurance Principles

The present quality assurance regulations of the George A. Olah Doctoral School aim to ensure that the overall quality of the Doctoral School remains stable and at a high level by regulating the key phases of doctoral training and degree conferral. Key phases include: the announcement of doctoral topics, admission to the doctoral program, doctoral program courses, monitoring and tracking student progress, requirements for obtaining a PhD, and the PhD degree conferral procedure. In each key phase, the supervisor plays a significant role, as they are in daily contact with the PhD student and, as a result, can directly and effectively guide their progress.

Through its Quality Assurance Plan, the DS aims to ensure the implementation of the following quality assurance principles:
The principle of professional oversight. Throughout the entire process of doctoral training and degree conferral, the oversight of the national and international professional scientific community must be upheld.
The principle of adherence to scientific ethics requirements. In the development and operation of the quality assurance system, the provisions of the BME Code of Ethics and the decrees of the Committee on Research Ethics of the Hungarian Academy of Sciences must be upheld.
The principle of transparency. The main phases of the quality assurance system should be widely accessible to the professional and academic community.
The principle of feedback. Students, instructors, thesis advisors, and members of the various councils of the DS participating in the doctoral program should receive continuous feedback on the quality of their work and have the opportunity to provide feedback on their experiences.
The principle of quality focus. Through the establishment and operation of the quality assurance system, we aim to ensure that the standards of both our students and faculty continuously rise

[1] https://www.enqa.eu/wp-content/uploads/2015/11/ESG_2015.pdf

in relation to themselves and their environment, and that humility toward science becomes an integral part of their values, while initiative and creativity become cornerstones of their thinking.
The principle of intellectual property protection. The quality assurance system ensures that doctoral education remains fully aligned with Hungary's and the European Union's efforts to protect intellectual property.
The principle of individual accountability. Establishing and operating a research school is a team effort, but it can only be successful if it is clearly defined who is responsible for what tasks and responsibilities within the training and research process are also defined.
The principle of documenting processes. Documentation must be prepared for all points of decision related to the doctoral program. Reviewing this documentation is a fundamental task of the quality assurance system. A key objective within the doctoral program as a whole is to ensure that the administrative burden on faculty members involved in the program does not increase during the development and operation of the quality assurance system.

3. The Mission of the Doctoral School (ESG 1.2)

The goal and mission of the Doctoral School is to provide future chemical and biological engineers in the fields of chemistry and the chemical industry (pharmaceuticals, pesticides, fine chemicals, cosmetics, food industry, etc.) and related sectors with high-level training that prepares them for independent research and development work at the international level and develops their skills, with particular emphasis on solving the chemical, biotechnological, and environmental problems they will face in research and development (R&D) in both industry and the academic sector. Graduates are expected to conduct high-quality research by understanding the interconnections of the chemical, chemical engineering, and bioengineering disciplines at a systemic level—in accordance with their field of study—and to publish their results internationally. In addition to applying and achieving innovative results, they should be capable of managing research projects and imparting up-to-date knowledge. To maintain international competitiveness, the DS prioritizes the use of English from the very beginning of the admissions process; through the selection of research topics, it ensures opportunities to participate in international, often interdisciplinary research, and encourages and facilitates collaboration with other research groups, institutes, and foreign researchers. It strives to develop an open, cooperative approach by ensuring high professional standards through some of the most rigorous doctoral requirements in Hungary, the selection of competent supervisors, and collaboration with national research institutes and industry-leading companies at the forefront of innovation.

Key quality objectives:

Quality	**Indicator**	**Objective**
high academic standards	Publications related to the thesis points of the doctoral dissertation should, if possible, appear in D1, Q1-2 journals	5% increase in the proportion of highly recognised scientific publications (D1, Q1)
promising research results from the perspective of basic research and practical applications	Number of doctoral programs organised in collaboration with external companies; number of patents	5% increase in the number of patents

efficiency	PhD title achievement rates	should be 5% above the national average
international presence	joint publications with foreign experts, the number of dissertations written in English, the number of dual/joint degrees awarded, and the inclusion of foreign participants in thesis defense committees	among the DS's publications, a 5% increase in works produced through international collaboration and in the number of English-language dissertations; and a 10% foreign participation rate in thesis defense committees

Supervision of activities that determine quality is carried out jointly by the Doctoral School Council (DIT) and the Habilitation Committee and Doctoral Council (HBDT) in accordance with the quality assurance plan detailed in these regulations.

We monitor the effective implementation of the above objectives by measuring the following indicators.

PhD title achievement rates:

a. *PhD title achievement rates (F) indexed to the calendar year of enrollment*: the percentage of students enrolled in a given calendar year who earned the PhD title within 5 years of enrollment.
b. *PhD title achievement rates after the complex exam (Fk)*: the percentage of students who took the complex exam in the given calendar year who earned the PhD title within 3 years of the complex exam.

Scientific results, research capabilities:

a. This requirement is ensured by the minimum publication requirements necessary for obtaining the PhD title; therefore, we do not provide any additional metrics.

Plans regarding the indicators:

– The F number must exceed the corresponding indicator calculated for all doctoral students in Hungary in the fields of chemical sciences, as well as bio-, environmental, and chemical engineering sciences.
– The Fk value should be at least 80%.

These indicators are calculated annually by the DS and reported to the DIT. The organization of data collection is the responsibility of the Vice Dean of Scientific Affairs and International Relations.

4. Announcement of PhD Thesis Topics (ESG 1.2, 1.8)

Twice a year (typically in October and March), the Doctoral School solicits PhD thesis proposals from the organizational units participating in the program, as well as from partner institutions. A doctoral thesis supervisor may be appointed if their candidacy and proposed research topic are approved by the DIT. The criteria for supervision are otherwise governed by BME DHSZ Section 12(5)(a), (b), and (d), as well as Sections 8–10 of the George A. Olah Doctoral School Rules of Operation. In the case of an external supervisor, the announcement

of the topic requires a statement of acceptance from the head of the external institution with which the Doctoral School has a contract, as well as the appointment of a consultant. Supervisors are expected to be actively engaged in research: the metrics of their scientific publications from the five years preceding the announcement of the topic must, on their own, significantly exceed the publication requirements set by the Doctoral School for PhD title conferral, and they must have at least two years of professional experience since obtaining their PhD title. Supervisors may supervise the work of no more than four doctoral students simultaneously. The DIT may grant an exemption from these conditions only with the approval of the University Habilitation Committee and Doctoral Council (EHBDT).
Regularly updated public information regarding doctoral topics and supervisors approved by the DIT, as well as admission requirements and the list of those admitted to the Doctoral School, is available on the website of the Doctoral School and the ODT.

5. Admission to the doctoral program (ESG 1.4, 1.8)

Admission to the doctoral program is only possible by applying to the nationwide call for applications posted on the doktori.hu website (and on the DS website, https://www.ch.bme.hu/en/education/PhD/phd-research-projects/), followed by a successful interview with the admissions committee. The doctoral school issues a ***call for applications*** twice a year, at times determined by the DIT (usually in March and October), which includes the research topic descriptions as well as the formal and substantive requirements for admission to the doctoral program.

Applicants participate in an admission interview; the purpose of the admission interview (usually held in June and December) is for the admissions committee to assess the candidate's preparedness and to prepare a ranked admission recommendation. The admissions committee is convened on an ad hoc basis by the Head of the Doctoral School from a pool of members approved by the HBDT, comprising core members, supervisors, and supervisors of the Doctoral School—which includes at least two members from each of the five departments of the Faculty. The admissions committee, consisting of at least five members, conducts an admissions interview with the applicants to assess the candidate's comprehensive professional knowledge, their ideas regarding their doctoral work, their professional activities to date, and their foreign language proficiency (BME DHSZ Chapter 8 (5)). A prerequisite for participation in the admission interview is written confirmation of acceptance by the supervisor and the host unit (department or external institution).

The formal requirements for admission are a MSc degree with at least a "good" grade and proof of the professional ***English*** language proficiency necessary for the field of study. Language proficiency is considered demonstrated by a state-recognized language exam at the intermediate "B2 complex" level or an equivalent certificate. In the absence of such proof, the admissions committee will assess language proficiency by conducting the admission interview in English.

The admissions process is overseen by numerous individuals and bodies within the Doctoral School and the Faculty: Based on the admissions committee's report, the DIT submits a recommendation to the Dean of the Faculty regarding admission and the awarding of state scholarships. Admission decisions are made by the Dean of the Faculty based on the DIT's recommendation, without altering the proposed order.

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6. Doctoral Program Subjects (ESG 1.5, 1.6)

The DIT decides on the inclusion of courses in the program and on the renewal of the course offerings. The curriculum must be reviewed at least every three years. The program is governed by the George A. Olah Doctoral School Training Plan and the BME TVSZ.

The DIT continuously monitors the suitability of DS instructors: DS instructors may only be those instructors and researchers holding an academic degree whom the DIT—upon the recommendation of the Head of the DS—deems suitable for a given period to perform teaching, research, and supervision duties within the DS. DS instructors are listed in the school's ODT database. If an individual teaches at multiple doctoral schools, they must declare on their ODT profile the percentage of their affiliation with each doctoral school.

Regularly updated, publicly available information regarding the DS's current curriculum, courses, and instructors can be found on the Doctoral School's website.

7. Monitoring of Student Progress (ESG 1.6)

Supervisors and external workplace managers continuously monitor students' academic performance and progress. In addition, the DIT evaluates PhD students annually based on their progress reports. The progress report to be submitted each semester—using the form available for download from the DS website—includes summary indicators of academic and research results (including publications, conference presentations, and seminar presentations related to the PhD topic).

In matters concerning the academic and examination affairs of doctoral students that are not assigned to the DIT's jurisdiction by law or university regulations, the Doctoral Study Committee (DTB) shall act (BME TVSZ §173). The DTB has four members: two of whom are the current Vice Dean of Scientific Affairs and International Relations and the Head of the DS, and the other two are doctoral students. The DIT also monitors those aspects of students' academic performance that are necessary for admission to the complex examination and for initiating the PhD title conferral process (number and quality of publications).

The Vice Dean of Scientific Affairs and International Relations shall notify the PhD student, their supervisor, and, where appropriate, the Head of Department in writing within 3 business days of any comments, decisions, or evaluations arising from DIT and HBDT meetings. Based on the DIT's evaluation, the Dean of the Faculty may transfer state-funded students who are not making adequate progress in their studies or research to a self-funded program.

8. Requirements for the PhD Degree

The general requirements for the doctoral degree are governed by Section 17 of the BME DHSZ and the George A. Olah Doctoral School Rules of Operation. The DS's additional requirements are set forth in the set of requirements adopted by HBDT and published on the DS's website.

The minimum requirements for degree conferral developed by the HBDT are also approved by the EHBDT in accordance with Section 7(g) of the BME DHSZ. For the approval by the EHBDT of the publication requirements, which are a key component of the set of requirements, the EHBDT establishes general (BME-level) minimum requirements, which are published on its website.

In addition to continuously monitoring the quality of the doctoral complex exams, the HBDT reviews the complex exam subjects every two years. The Complex Exam Committees are appointed by the HBDT in all cases.

9. The Degree Awarding Procedure

The rules governing the degree awarding procedure are set forth in detail in the BME DHSZ (Sections 15–23). The body responsible for conducting the procedure is the HBDT.

The requirements for a doctoral degree are the completion of the complex examination, the submission of the doctoral dissertation within three years following the complex examination (Nftv. §53(4)), and the successful defense of the doctoral dissertation in a public defense organized by the HBDT (the three-year deadline may be extended by up to one year in cases deserving special consideration—within the authority of the DIT).

The doctoral dissertation must be submitted for a workplace defense prior to its final submission. The purpose of the workplace defense is to examine the adequacy of the doctoral dissertation and the thesis points, and to prepare the candidate for the public defense. During the defense, the dissertation is evaluated by two opponents, each holding at least a PhD degree. The proceedings of the defense, and in particular the opinions and findings regarding modifications to the dissertation, must be recorded in the minutes. The opinions of the two opponents shall be attached to the minutes. The participants in the workplace defense shall, by majority vote, determine and record in the minutes that the dissertation (possibly with minor changes discussed during the defense) is ready for final submission. In the event of a significant revision of the dissertation, the workplace defense must be repeated. The candidate must attach a list of the changes made to the revised dissertation or must state that the proposed changes have been rejected.

After the dissertation is submitted, the HBDT determines whether the review process can be initiated and then—in accordance with Section 20 of the DHSZ—appoints the Evaluation Committee, whose members receive the collection of thesis materials. The members of the Evaluation Committee receive the opponents' opinions in electronic form after both reviews have been submitted, and the candidate's responses to these opinions no later than one week before the defense. Upon the announcement of the public defense, the dissertation and the thesis booklet are made public on the DS website and the doktori.hu website. The identities of the reviewers are not made public until the reviews are completed.

Scientific publications presented in the doctoral dissertation that contain the candidate's own results must be assigned to thesis points. Publications that the PhD student does not assign to a thesis point cannot be used for the doctoral dissertation.

In the format specified by the DS, co-authors—excluding the supervisor—must declare the authors' respective contributions to the publications within the context of the PhD program in Hungary. When assessing the minimum requirements for degree conferral, the DS considers only publications in which the author's contribution exceeds 50%, thereby ensuring that a publication can be used only once when assessing the minimum requirements for degree conferral.

A prerequisite for submitting a doctoral dissertation to the reviewers is that the publications assigned to the thesis points meet the DS's detailed publication requirements, which are part of the George A. Olah Doctoral School Rules of Operation (publicly available in the doktori.hu database and on the DS website). Another condition for initiating the review process is the fulfillment of foreign language requirements.

A dissertation sent to the reviewers cannot be modified afterward. If the Evaluation Committee objects to professionally incorrect statements or does not accept certain thesis points, the relevant section of the committee's minutes must be attached to the dissertation (including in electronic form), and the defended dissertation is published with this supplement (library, repository).

10. Tracking of PhD graduates (ESG 1.7)

The DS tracks the career paths of graduates using the University's standardized monitoring procedure. The results are published in the DS's periodic self-evaluations in the doktori.hu website. Tasks related to tracking are organized by the Vice Dean for Academic and International Affairs, and the results are evaluated by the DIT.

11. Review cycles (ESG 1.8, 1.9)

The DS continuously (at least every three years)

- reviews the course curriculum,
- reviews the relevant policies (Quality Assurance Plan, Rules of Operation, Training Plan),
- conducts surveys among instructors and students to identify the strengths and weaknesses of the program.

12. Concluding Remarks

Where this Quality Assurance Plan establishes requirements that are not specified in legislation or BME regulations, or that are stricter than those specified therein, the requirement may, in exceptional cases, be modified to the extent permitted by higher-level regulations. Permission (based on a written, detailed, and justified request) may be granted by the DIT in the case of doctoral programs and by the HBDT in the case of degree conferral procedures, through a decision recorded in the minutes.

This Quality Assurance Plan was discussed and approved by the BME EHBDT on 29th January 2026.

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