OPERATIONAL REGULATIONS
DOCTORAL SCHOOL OF CHEMISTRY

The requirements for admission to the doctoral school and for obtaining the doctoral degree are jointly defined and mutually complemented within the University by three regulations: the Doctoral Regulations of the University of Debrecen (UD), the Doctoral Regulations of the Doctoral Council for Natural Sciences and Engineering (TTDT) and the Operational Regulations of the University of Debrecen's Doctoral School of Chemistry (DSC).

Admission and training in the Doctoral School of Chemistry

Applicants - Hungarian or foreign citizens- may apply for organised doctoral training in the Doctoral School of Chemistry if they hold a master's degree and qualification obtained at a Hungarian or foreign university, or an equivalent university - level degree and qualification, or will obtain such in the year of admission.

The application must include the name of the proposed supervisor, the title of the research topic, a brief summary of the applicant's preliminary research concept, and the supervisor must provide an evaluation of it. The admission committee - typically consisting of the heads of the chemistry doctoral programmes - conducts a professional interview with each applicant. The committee awards points in three categories: professional aptitude: max. 40 points, diploma: max. 30 points, previous scientific work (publications, student research papers, conference presentations): max. 30 points.

No points may be awarded for diplomas obtained more than two years prior to the application or earned abroad; in these cases, the maximum scores in the remaining two categories are increased by 15–15 points. A minimum of 60 points is required for admission.

Applicants may be admitted to the Hungarian-language programme of the Doctoral School of Chemistry if they possess adequate language proficiency in English, German, French, Spanish, or Russian.

Acceptable proof of language competence includes:

- a state-recognised complex language examination at least at intermediate level (B2),
- a degree in the relevant language or in specialised translation,

- a secondary-school leaving certificate or master's degree obtained in the given language,
- certification issued by the Foreign Language Centre of the UD Faculty of Medicine, Faculty of Humanities, or Faculty of Economics,
- completion of specialised foreign-language requirements in any master's programme of the UD Faculty of Science and Technology.

Additional language skills may earn bonus points (3 points for an intermediate "C-type" or higher-level "A/B-type" certificate, 5 points for a "C-type" advanced certificate). Requirements may differ for foreign applicants. Candidates are ranked by their total score, and state-funded scholarships available for the given year are offered to those with the highest scores. Candidates who pass the admission exam but do not receive a scholarship may still enrol as self-financing students.

Supervisors

A supervisor in the Doctoral School of Chemistry must be a qualified lecturer or researcher with a scientific degree who has demonstrated suitability through previous scientific and teaching activity, and whose announced topic has been approved by the Doctoral School Council (DSC). A supervisor may accept up to three new doctoral candidates per admission cycle, depending on scientific rank; exceptions may be requested from the TTDT.

- Full professors, scientific advisors, and Doctors of the Hungarian Academy of Sciences may supervise up to eight state-funded doctoral students simultaneously.
- Habilitated associate professors and senior researchers may supervise up to two; others may supervise one.

Returning researchers (e.g. Lendület grantees) may supervise up to two students if their research performance is equivalent to habilitation. Supervisors may take additional students if they document the successful progress of their active PhD students—earliest in the semester following their students' complex exam.

Supervisor registration may be requested no earlier than five years after PhD graduation; the DSC decides on acceptance, considering available research funding and past experience in thesis supervision (BSc, MSc). In justified cases, the DSC may waive the five-year requirement.

Doctoral training rests on **three pillars**: research, active participation in professional courses, and teaching. Doctoral students must complete **30±3 credits per semester**. In full-time training, a total of **241 credits** must be earned (196 research, 13 study, 32 teaching). In part-time training: 241 credits (228 research, 13 study). Study credits may be earned only for subjects graded on a five-point scale.

In addition to DSC and recognised external doctoral courses, credits may also be earned by active participation in departmental/institute seminars and regular attendance of Hungarian and foreign-language scientific lectures. The list of courses is continuously updated on the DSC website.

Full-time doctoral students must participate in departmental seminars throughout the entire training period and typically contribute 4 hours per week to teaching activities (classroom and laboratory instruction). The DSC considers this an essential component of doctoral education.

Research activity

Both full-time and part-time students must engage in research for **a minimum of eight semesters**. Continuous research activity is certified each semester by the supervisor in the student's index and in the Neptun system under the appropriate course code (Annex 1). Research is not graded.

The DSC publishes detailed credit requirements and recommended timelines on its website.

No absolutorium may be issued without the required 8 semesters of research. In exceptional cases and based on a written request supported by the supervisor and programme leader, the DSC may grant partial exemption and allow early absolutorium, provided all other requirements are fulfilled.

Supervisors are responsible for securing financial resources and for the direct guidance of research. Students must submit written research reports each semester; supervisors certify research credits in Neptun based on these reports, which must also be sent to the head of the DSC. In semesters 1, 3, 5, and 7, a **research report** is required; in semesters 2, 4, 6, and 8, an **annual progress report** must be submitted. Deadlines coincide with the last day of the teaching period.

State-funded full-time students receive a scholarship; its amount is defined by legislation and university regulations (Articles 7, 8, Annex 12 of the UD Doctoral Regulations). The DSC may

support international mobility for both full-time and paying part-time students, subject to available resources.

Part-time and individual preparation

Doctoral studies may also be pursued in part-time form or through individual preparation.

- Part-time admission procedures follow the same rules as full-time.
- Individual applicants, upon acceptance, enter a self-financed student status and immediately begin their doctoral procedure. The TTDT recognises minimum credits required for the complex exam. Additional credits may be recognised upon request.

A supervisor from the DSC core members is assigned to each individual candidate.

Part-time and individual students do not receive scholarships and typically pay tuition fees. Fee waivers may be requested with the supervisor's and programme leader's recommendation. UD employees ("internal" part-time or individual students) are automatically exempt from tuition fees.

Requirements for submitting the dissertation

Submission requires an obtained absolutorium. Upon submission, the candidate must declare that:

- no other doctoral procedure is in progress in the same discipline,
- the dissertation has not been previously submitted or rejected elsewhere,
- no unsuccessful defence occurred within the last two years,
- no procedure for revoking a doctoral degree is ongoing, and no degree was revoked in the last five years,
- the dissertation is their own independent work, with complete and accurate references.

Dissertation format

The dissertation must summarise the candidate's original scientific results. It must be written in Hungarian or another professionally justified language. Formal requirements are uniform across the Faculty of Science and Technology: size: **B5**, length: **80–120 pages** (excluding appendices),

mandatory chapters: Introduction, Literature Background, Results, Materials and Methods, Summary, References.

It must include a summary in **Hungarian and English** (and optionally another relevant language). Non-native-language summaries must be sufficiently detailed (4 – 8 pages).

One printed copy must be submitted, including designated space for the defence date and signatures of the committee.

A declaration must specify when and within which doctoral programme the results were produced and confirm that they are not part of another dissertation.

Theses (Thesis Booklet)

The thesis booklet must be submitted in one printed copy, in **A5 format**, in Hungarian and English. It must list the new scientific results in bullet points and include an authenticated publication list, distinguishing peer-reviewed publications from other works.

Prior to initiating the defence procedure, the candidate must upload all publications to the **University of Debrecen Electronic Archive (DEA)**. The library verifies the publication list, which must be submitted with the thesis and dissertation to the TTDT.

Use of AI tools in the preparation of the dissertation

The Doctoral School of Chemistry supports the use of artificial intelligence technologies in research, provided they comply with scientific and ethical standards. Particular attention must be paid to independent work, scientific integrity, authorship, and data protection. Irresponsible or unethical use - including plagiarism, manipulation, or misleading content - may result in disciplinary procedures or rejection of the dissertation.

Candidates must declare whether they used AI tools (Annex 6). If so, they must specify **which parts of the dissertation** and **for what purpose** AI was used. The candidate bears full responsibility for the accuracy, scientific validity, and proper referencing of any content produced using AI.

Publication requirements

The Doctoral School of Chemistry considers a doctoral dissertation acceptable from a professional point of view if, at the time of its submission, at least **two publications** based on the research underlying the dissertation have appeared in **internationally refereed, Scimago-ranked journals with an impact factor** (with a DOI number, or available as a proof, or confirmed by the journal editor as accepted for publication).

In the case of dissertations prepared in the field of **chemistry education (subject methodology)**, the generally expected minimum requirement is **two foreign-language papers** published in internationally refereed, Scimago-ranked journals (with a DOI number, or available as a proof, or confirmed by the journal editor as accepted for publication).

It is regarded as a basic requirement that at least **one** of the publications has been prepared with the **candidate's substantial contribution**. The publications may have co-authors, including the candidate's supervisor. If two or more PhD candidates are co-authors of the same paper, the supervisor must declare what proportion (in percentage terms) of the results used in the dissertation reflects the contribution of the given candidate.

The Doctoral School of Chemistry **does not accept** articles published in journals identified as having questionable publication practices as publications to be considered towards the dissertation. Journals on the so-called "Norwegian list" can be checked on the MTMT website: https://www.mtmt.hu/kifogasolhato_folyoiratok_2025

The Doctoral School of Chemistry applies this restriction to dissertations submitted **after 1 March 2025**. Importantly, if a journal was placed on this list **after** the submission of the manuscript, the use of the corresponding publication remains acceptable.

Language requirements

In the Doctoral School of Chemistry, a condition for the award of the doctoral degree is that the candidate has the language skills necessary for working in the discipline, as follows:

- at least **intermediate-level knowledge of English**, or
- if the candidate has intermediate-level language competence in **one of German/French/Spanish/Russian**, the language requirement for the degree is to meet

one of the following conditions in English: (a) holds at least one state-recognised complex language examination at minimum **A2 (basic)** level (according to the CEFR), or (b) an equivalent language examination, or (c) has passed a university final language examination in English, or (d) holds a certificate issued by any language-teacher group of the University of Debrecen attesting to professional language competence in English corresponding to the A2 entry level.

Acceptable proof of language competence necessary for work in the field includes:

- a state-recognised, at least intermediate-level, complex language examination (corresponding to **B2** level of the CEFR), or an equivalent recognised certificate;
- a degree in the relevant language or in specialised translation;
- a secondary school-leaving certificate or a master's degree obtained in the given language;
- a certificate issued by the Foreign Language Centre of the UD Faculty of Medicine, the Foreign Language Centre of the Faculty of Humanities, or the Institute of Business Language Communication of the Faculty of Economics;
- fulfilment of the specialised foreign-language requirements in any master's programme of the Faculty of Science and Technology of the University of Debrecen.

The language competence required for work in the discipline must be certified **no later than at the time of submission of the doctoral dissertation**.

The complex examination

The complex examination is taken at the end of the **fourth semester** of the doctoral training, as the closing element of the **training and research phase** and as a prerequisite for entering the **research and dissertation phase**. It assesses and evaluates the candidate's academic and research progress.

Admission to the complex examination requires that, during the first four semesters (the "training and research phase"), the student earn at least **90 credits** and obtain all "training credits" prescribed in the curriculum of the doctoral school (except for candidates preparing individually for the doctoral degree). Application for the complex exam must be submitted in

writing (see Annex 4 of the UD Doctoral Regulations). Since successful completion of the complex exam marks the transition to the degree-awarding procedure, application for the complex exam simultaneously constitutes application for the doctoral procedure.

The complex examination is public and must be taken before a committee appointed by the **disciplinary doctoral council**. The committee has at least three members, at least one-third of whom are **not employed** by the institution operating the doctoral school. The chair must be a full professor, habilitated associate professor, habilitated college professor, Professor Emeritus, or a researcher or lecturer holding the title Doctor of the Hungarian Academy of Sciences. All members of the committee must hold a scientific degree. The candidate's supervisor **cannot** be a member of the committee.

Before the complex examination, the supervisor shall provide a written evaluation of the doctoral student's performance and state whether they recommend the initiation of the degree-awarding procedure.

The complex exam consists of **two main parts**:

1. **Theoretical part** – assesses the candidate's theoretical preparation, familiarity with the literature of the discipline, and up-to-date theoretical and methodological knowledge. The candidate must take examinations in at least **two subjects/topics** listed in the training plan of the doctoral school. The theoretical part may also include a written component. The subjects for the complex exam are listed in the Operational Regulations of the Doctoral School of Chemistry (Annex 5). The list of subjects and their syllabi are determined by the Doctoral School Council and made publicly available on the DSC website.

2. **Dissertation part** – the candidate gives a presentation on the relevant literature, reports on their research results, and presents the research plan for the second phase of doctoral training, including the schedule for preparing the dissertation and publishing the results. The supervisor must be given the opportunity to evaluate the candidate during the exam.

The committee evaluates the theoretical and dissertation parts **separately**. A written record (minutes) including a textual evaluation is prepared (see Annex 5/1 of the UD Doctoral Regulations). The final result must be announced on the day of the oral exam. The complex exam is deemed successful if the majority of the committee members find **both parts** of the

exam satisfactory. In case of failure, the candidate may repeat the complex exam **once** in the same examination period.

The doctoral student may enrol in the **fifth semester** of training only after successfully completing the complex examination.

Preliminary (institute-level) defence of the dissertation

The doctoral student must submit the final version of the dissertation **within three years** after the complex exam. Before this, the results of the research forming the basis of the dissertation must be submitted to a professional (workplace) debate organised and conducted by the programme in which the research was carried out. The preliminary defence may take place as a separate event, during departmental seminars, at meetings of MTA committees or working groups, at regional MTA committees and their subcommittees, or within the framework of another professional event.

The committee for the preliminary defence is appointed by the **Doctoral School Council (DSC)**. Its composition: **Chair** – a scientist with a doctoral degree, an accredited core member of a doctoral school of the University in the relevant field (preferably a member of the Doctoral School Council). **Two referees** – one is an accredited supervisor of the Doctoral School of Chemistry (*internal referee*), the other is an **external referee** who is not affiliated with the DSC (but may belong to another doctoral school of the University or another research institution and must hold a scientific degree).

Referees must be selected so that no conflict of interest exists (e.g. joint publications with the candidate). At least one-third of the committee members must **not** be lecturers of the given doctoral school. If the external referee does not belong to any doctoral school or research unit of UD, they may later be appointed as an official opponent for the public defence by the TTDT.

When applying for the preliminary defence, the candidate must submit the **near-final version** of the dissertation in electronic form. Before being sent to the referees, this version is forwarded by the secretary of the doctoral school to the University and National Library for text-similarity checking. Within three working days the Library provides a report, which is then sent to the referees. Along with the dissertation, the candidate must also submit a **publication list**

containing the scientometric data of the published (accepted) papers (non-authenticated version). Optionally, draft theses, published papers and manuscripts may also be attached.

In their written assessments, the referees must declare whether, based on the available data, the dissertation meets the requirements of **publication ethics**. The preliminary defence may be held even if the referee(s) raise ethical concerns, provided that any issues can be corrected in the final version without legal consequences. If an ethical concern is raised in the preliminary evaluation, the disciplinary doctoral council must be informed of this when the final dissertation is submitted. In such a case, the final version must undergo **another text-similarity check**, and the resulting report must be forwarded to the official opponents.

Minutes must be taken of the preliminary defence. In addition to the usual details (date, venue, names, affiliations and academic titles of attendees), the minutes must include the questions asked, the candidate's answers and all professional contributions. The referees and the committee must clearly state whether they **recommend** preparing and submitting the final version of the dissertation. It is the candidate's right and responsibility to decide to what extent they incorporate the comments and suggestions from the referees and the discussion into the final version.

The final dissertation may only be submitted **together with the minutes** of the preliminary professional debate.

In organising and conducting the preliminary defence, the **regulations of the TTDT** must be followed; these are available on the website of the doctoral school.

Evaluation and public defence of the dissertation

The chair, members and alternate members of the defence committee are appointed by the disciplinary doctoral council. The committee consists of the chair, the official opponents, and a further two to four members. The chair is a full professor or professor emeritus of the University in the relevant field, and all members of the committee must hold a scientific degree. At least one-third of the committee members, including at least one of the opponents, must be **external experts** not employed by the University (professors emeriti and retired professors of the University are **not** considered external). An opponent who has recommended rejection of the dissertation is also a member of the committee. The candidate's supervisor, as well as any

person who is a co-author of a publication based on the dissertation, may not be a member of the committee. Within eight days, the candidate may file a written objection to the disciplinary doctoral council regarding the composition of the committee, but **only** on the grounds of conflict of interest or bias.

The two opponents, at the request of the doctoral council, prepare written reviews of the dissertation within two months (counted within a teaching period) from its submission, and must state whether they recommend that it be admitted to public defence. The dissertation may be submitted to public defence only if **both** opponents recommend it. If one of the reviews is negative, the TTDT invites a **third** opponent. If there are two rejecting reviews, a new dissertation may be submitted only after one year, in a new review procedure.

The review must detail the strengths and weaknesses of the dissertation in terms of content and form, with particular reference to whether the new scientific results claimed in the theses and attributed to the candidate are acceptable. The opponents must clearly state whether they recommend acceptance of the dissertation and the award of the PhD degree to the candidate. The review may also contain questions addressed to the candidate, to which the candidate is required to respond in writing.

The dissertation must be submitted to public defence within two months (within a teaching period) after receipt of two supportive reviews. The candidate receives the reviews in writing in advance and answers the questions raised in them in good time and in writing before the defence. Members of the defence committee have access to the dissertation, the reviews and the written responses.

During the public defence, the candidate gives a free presentation (20–25 minutes) summarising the theses of the dissertation, then answers questions from the opponents and from the committee members and other attendees. After the conclusion of the defense, the committee evaluates the candidate's performance in a closed session. Each member of the committee assigns separate grades—on a four-level scale (summa cum laude, cum laude, rite, not passed)—for the dissertation, the candidate's independent scientific work, and the candidate's performance during the defense. The result of the defense is determined in accordance with Annex 13 of the Doctoral Regulations of the University of Debrecen.

In the case of an unsuccessful defence, a new defence procedure in the same doctoral topic may be initiated at most **once**, and no earlier than two years after the unsuccessful defence. In such

a case, the candidate does **not** have to repeat the previously passed comprehensive (complex) examination.

In the case of a closed defense - after consulting the candidate - the chair of the evaluation committee decides who (in addition to the candidate and the members of the evaluation committee) may attend the defense. All participants must sign a confidentiality statement, which must be attached to the minutes of the defense. The procedure and decision-making process of the closed defense are identical to those of the public defense. The minutes of a closed defense are not public, and no copies may be issued. One copy of the dissertation defended in a closed session must also be provided to the University and National Library, but measures must be taken to ensure the confidentiality of the dissertation.

Awarding and classification of the doctoral degree

For graduates of the Doctoral School of Chemistry, the **doctoral (PhD) degree** is awarded by the **University Doctoral and Habilitation Council**.

The classification of the doctoral (PhD) degree is determined by the following three components: the evaluation of the dissertation, the candidate's independent scientific work, and the evaluation of the public defence.

The overall classification of the degree is:

- *summa cum laude* if all three components are graded *summa cum laude*;
- *rite* if at least two of the three components are graded *rite*;
- *cum laude* in all other cases.

From the date of the decision, the successful candidate may use the title **Dr. (PhD)**.

Other aspects of the operation of the Doctoral School of Chemistry

The Doctoral School of Chemistry operates as a unit comprising five programmes:

K/1 Reaction Mechanisms and Catalysis

K/2 Coordination Chemistry

K/3 Analytical Chemistry

K/4 Macromolecular and Surface Chemistry

K/5 Chemistry and Chemical Biology of Carbohydrates and Heterocycles

The **Council of the Doctoral School of Chemistry** is a regularly meeting body assisting the work of the Head of the School. Its members are appointed and dismissed by the Doctoral Council of Natural and Technical Sciences (TTDT). The chair of the Council is the Head of the Doctoral School; its voting members are the heads of the doctoral programmes, and it also includes one PhD student with consultative rights, elected by the students of the Doctoral School. Minutes are taken of the Council's meetings.

Every member of the Doctoral School of Chemistry has the right to propose a new course or to request the deletion of a previously announced course. The introduction of a new course into the teaching programme must be proposed **in writing** to the Council of the School before the beginning of the semester. The proposal must contain the title of the course, the form of instruction, the method of assessment, the credit value and a brief description of the course content.

The announcement of a new doctoral research topic must also be initiated in writing and must include a brief description of the research topic to be carried out, as well as of the equipment and financial resources required. In the case of an **external supervisor**, the Council of the School must appoint an **internal adviser** on the recommendation of the head of the relevant doctoral programme. The Council supports joint supervision only in exceptionally well-justified cases. Co-supervision is decided by the University Doctoral and Habilitation Council (EDHT) on the basis of a written request submitted to the TTDT.

The tasks of the secretary and the administrative officer of the Doctoral School of Chemistry are defined in Annexes 3 and 4 of the Operational Regulations.

The website of the Doctoral School of Chemistry is: https://chemistryphd.unideb.hu/.

The present Regulations have been approved by electronic voting of the Council of the Doctoral School of Chemistry.

20 November 2025

Dr. Tibor Kurtán
professor
Head of the Doctoral School of Chemistry

Appendix 1: Code and credit value of research work
Appendix 2.1: Research report
Appendix 2.2: Annual report on the doctoral student's achievements
Appendix 3: Duties of the Secretary of the Doctoral School of Chemistry
Appendix 4: Duties of the Administrator of the Doctoral School of Chemistry
Appendix 5: List of comprehensive examination subjects of the Doctoral School of Chemistry
Appendix 6: Declaration on the use of AI tools

Appendix 1

Code and credit value of research work

Semester	English-language programme		
	Code	**Name of the course**	**Credit**
I.	PK0001_EN-16	Research Work I.	28
II.	PK0002_EN-16	Research Work II.	28
III.	PK0003_EN-16	Research Work III.	26
IV.	PK0004_EN-16	Research Work IV.	26
V.	PK0005_EN-16	Research Work V.	30
VI.	PK0006_EN-16	Research Work VI.	30
VII.	PK0007_EN-16	Research Work VII.	30
VIII.	PK0008_EN-16	Research Work VIII.	30
		Total:	**228**

Appendix 2.1

Research report

submitted at the 1., 3., 5. and 7. semesters

Name of the PhD students:

e-mail:

year:

code of the PhD program (K/1,..., K/5):

type of the training (normal/correspondence/individual):

Name of the supervisor:

Report (max. half page) about the results of research at the 1., 3., 5. or 7 semesters:

Debrecen, ……, 20..

signature of the student signature of the supervisor

Appendix 2.2

Annual report of the PhD study

submitted at 2nd, 4th, 6th and 8th semesters

Name of the PhD: student:

e-mail:

year:

code of the PhD program (K/1,..., K/5):

type of the training (normal/correspondence/individual):

Name of the supervisor:

In the case of the first-year students:

Was the research plan presented in the beginnings of the year? YES / NO

If the answer YES, write the date and title of the presentation:

Number of the credits (just in the finished semesters):

research credits:

learning credits:

Registered/documented scientific results:

- *Published or accepted publications in international scientific journals:*
- *Submitted (still not accepted) publications in international scientific journals:*
- *Other publication activities:*
- *Oral presentations (under the PhD studies):*
- *Poster presentations (under the PhD studies)*

Research report of the 2., 4., 6. and 8. semesters (max. ½ page):

Debrecen, ……day, …….month, 20...

signature of the student signature of the supervisor

A short, textual evaluation by the head of the school:

accepted/not accepted

Signature of the Head of the Doctoral School

The result of the mandatory annual evaluation is recorded in the student's electronic doctoral training registry in the Neptun system.

Appendix 3

Duties of the Secretary of the University of Debrecen (UD) Doctoral School of Chemistry (KTDI)

1. The Secretary of the KTDI (hereinafter: Secretary) is appointed by the Head of the KTDI from among the teachers of the Doctoral School of Chemistry, in agreement with the Council of the Doctoral School of Chemistry (KTDIT). The appointment, of which the Head of the KTDI informs the Secretary in writing, remains valid until revoked or until the Secretary resigns.
2. The Secretary's primary task is to assist the Head of the KTDI in all matters concerning the Doctoral School.
3. The Secretary:
    - organises the meetings of the KTDIT,
    - participates (with the right to speak) in the meetings of the KTDIT,
    - monitors deadlines related to the KTDIT's regular obligations (admission, comprehensive examination, appointment of preliminary defence and defence committees, annual reports of PhD students, determining tuition fees each academic year, course and topic announcements, etc.), and initiates timely actions,
    - cooperates with the Head of the KTDI in organising accreditation-related tasks and ensuring their timely completion,
    - prepares the plan for distributing the doctoral training support for the KTDIT,
    - conducts regular surveys every 2–3 years to monitor the career progression of graduates and submits the results to the KTDIT,
    - maintains continuous contact with the secretary and administrator of the Council of Natural and Technical Sciences (TTDT),
    - performs all tasks assigned by the Head of the KTDI concerning doctoral training, or which the doctoral regulations of the UD and/or the TTDT designate as the Secretary's responsibility.
4. The Secretary may receive remuneration for their work. The amount and method of payment are determined annually by the KTDIT based on the financial situation of the KTDI (as part of the distribution of that year's doctoral training support), about which the Secretary is informed in writing by the Head of the KTDI.

Appendix 4

Duties of the Administrator of the Doctoral School of Chemistry

1. The Administrator of the KTDI (hereinafter: Administrator) is appointed by the Head of the KTDI in agreement with the Council of the Doctoral School of Chemistry (KTDIT). The appointment, of which the Head of the KTDI informs the Administrator in writing, remains valid until revoked or until the Administrator resigns.
2. The Administrator's primary task is to carry out the administrative and record-keeping obligations of the doctoral school, under the guidance of the Head of the KTDI.
3. Duties of the Administrator:
    - regularly updates the doctoral school's data and documents in the database of the National Doctoral Council (www.doktori.hu): entering and removing lecturers, supervisors and core members according to the decisions of the competent bodies; publishing topic announcements; publishing doctoral defences; etc.,
    - performs study administration tasks in the Neptun system,
    - at the beginning of each semester ensures the timely announcement of doctoral courses,
    - in cooperation with the Head of the KTDI maintains and updates the records of the doctoral school's model curricula, courses and syllabi, both in paper form and in the Neptun system,
    - monitors the up-to-dateness of the KTDI website and regularly ensures its updating (announcement of preliminary defences, comprehensive examinations and defences),
    - maintains the KTDI notice board,
    - in cooperation with the Head of the KTDI manages the KTDI accounts and maintains records of the doctoral school's financial framework,
    - prepares the documentation for the distribution and transfer of doctoral training support under the Head of the KTDI's guidance,
    - maintains continuous contact with the administrator of the Council of Natural and Technical Sciences (TTDT),
    - performs all tasks assigned by the Head of the KTDI related to the operation of the doctoral school.
4. The Administrator receives remuneration for their work. The amount and method of payment are determined annually by the KTDIT based on the KTDI's financial situation (as part of the distribution of that year's doctoral training support), about which the Administrator is informed in writing by the Head of the KTDI.

Debrecen, 20 November 2025

Appendix 5

List of comprehensive examination subjects of the Doctoral School of Chemistry

Major Subjects:

1. Reaction Kinetics
2. Catalysis
3. Research in Chemistry Education
4. Coordination Chemistry of Transition Metals
5. Coordination Chemistry of Main Group Elements
6. Instrumental Analytics
7. Macromolecular Chemistry
8. Colloid and Surface Chemistry
9. Radiochemistry
10. Modern NMR Methods
11. Pharmaceutical Chemistry
12. Chemistry and Biochemistry of Carbohydrates
13. Chemistry of Heterocyclic Compounds
14. Antibiotic Chemistry
15. Chemistry of Non-metallic Elements
16. Molecular Modelling

Minor Subjects:

1. Nonlinear Chemical Dynamics
2. Activation of Small Molecules
3. Catalysis in Green Chemistry
4. Relaxation Kinetic Methods
5. Transition Metal Complex Catalysis
6. Chemistry Teaching
7. Bioinorganic Chemistry
8. Analytical Methods in Environmental Protection
9. Kinetics and Mechanism of Reactions of Complexes
10. Macrocyclic Ligands and Their Complexes
11. Chemistry of Complex Equilibria
12. Organometallic Chemistry of Main Group Elements
13. Coordination Chemistry of Non-metallic Elements
14. Atomic and Molecular Spectroscopy
15. Electrochemical Analytical Methods
16. Electrophoretic Methods
17. Chromatographic Analytical Methods
18. Surface Analytical Chemical Methods
19. Radioanalytical Methods
20. Synthesis and Structure of Macromolecules
21. Polymers
22. Colloid Chemistry of Macromolecules

23. Interfacial Chemistry
24. Spectroscopic Methods in Chemical Structure Elucidation
25. Synthetic Methods for Carbon–Carbon Bond Formation
26. Structure Analysis of Peptides and Proteins
27. Glycoenzymes
28. Mechanisms of Organic Reactions
29. Synthons and Retrosynthesis
30. Analytical Chemistry of Carbohydrates
31. Chemistry of Enantio- and Diastereoselective Reactions
32. Chemical Materials Science
33. Application of Theoretical Chemical Methods in Mechanistic and Structural Studies

Appendix 6

Declaration on the use of AI tools

I, the undersigned …… PhD candidate, declare that I have not used AI tools in the preparation of my doctoral dissertation.

Debrecen, ……

signature

I, the undersigned …… PhD candidate, declare that I have used AI tools in the preparation of my doctoral dissertation, the details of which are listed below:

Debrecen, ……

signature