



Guideline ¹

Doctoral studies at the Department of Mathematics to the doctoral degree regulations as of March 1, 2019

1 General

This guideline informally describes about the procedure of doctoral studies at the Department of Mathematics. Furthermore, you get an overview about the subject-specific decisions made by the doctoral committee (German: Promotionsausschuss) of the Department of Mathematics. The legal basis for doctoral studies at the Department of Mathematics are the valid doctoral degree regulations (German = Promotionsordnung, abbreviated PO) of the University of Stuttgart.

At the Department of Mathematics, the current vice dean is the chairperson of the doctoral committee.

For doctoral studies in the IMPRS-IS Graduate School and at the [Cluster of Excellence "Data-integrated Simulation Science \(SimTech\)"](#) the additional regulations have to be considered. The doctoral candidate and his/her doctoral supervisor are responsible for meeting the specific deadlines (e. g. progress report).

The doctoral degree regulations as of March 1, 2019 became effective on April 1, 2019 and are available at: [OPUS:Doctoral degree regulations of the University of Stuttgart as of March 1, 2019](#). Detailed information regarding the procedure of doctoral studies are available at: [Doctoral Degrees and Habilitations – Faculty 8 – University of Stuttgart](#) and at [The five steps to gain your doctoral degree](#).

2 Procedure at the Department of Mathematics

Prior to starting your doctoral studies, you need to find a doctoral supervisor. At the Department of Mathematics, the following persons can act as doctoral supervisor: professor, tenure track professor, junior professor, private lecturer, higher education institution lecturer or university lecturer of the University of Stuttgart, who is entitled to the right of reporter (PO §3 Abs 1 (3)). With the conclusion of the written agreement on doctoral studies the candidate **has to register** at the University of Stuttgart (PO §4 Abs. 3 (6)). Information on this can be found at [Registering, applying and enrolling](#).

The procedure of doctoral studies consists of the following eight steps:

- Step 1: Acceptance as doctoral candidate
- Step 2: Doctoral studies
- Step 3: Submission of doctoral thesis / Application for admission to oral doctoral examination
- Step 5: Perusal of reports
- Step 6: Oral examination
- Step 7: Publication of the doctoral thesis
- Step 8: Doctoral degree certificate and completion of procedure

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Step 1: Acceptance as doctoral candidate

At the beginning of the doctoral procedure, usually prior to starting on the doctoral thesis, you need to apply for acceptance as doctoral candidate. You need to submit your application in writing including all attachments to:

GRADUS - Promovierendenmanagement
Pfaffenwaldring 5c
70569 Stuttgart

GRADUS will check all application documents and transmit the file to the vice dean's office. The doctoral committee of the Department of Mathematics will then decide about the acceptance as doctoral candidate during the next meeting. Acceptance might be subject to meeting additional requirements. The candidate receives a letter informing if the prerequisites for doctoral studies have been met and if he/she has been accepted as doctoral candidate (the doctoral supervisor and GRADUS will receive copies of that letter).

Private lecturers will be entitled ad personam and for each specific case to act as a reporter or supervisor. The doctoral committee and the faculty committee will decide on this (*decision by the Mathematics doctoral committee on November 14, 2018*).

Verification of formal prerequisites:

Candidates holding a degree in Mathematics (Diplom, master's degree or Staatsexamen) from a German University are usually accepted as doctoral candidate without any additional conditions.

Candidates with a foreign degree or a degree from a German University but in another subject, might need to provide proof as to the breadth and depth of their proficiency in Mathematics. The chairperson of the doctoral committee verifies the prerequisites, in alignment with the doctoral supervisor. The application for acceptance as doctoral candidate can be accepted, declined or accepted on conditions.

Candidates with foreign degrees need to get their degrees recognized by the University's Admission Office for Foreign Citizens. Therefore, when sending the application to GRADUS, please attach in addition to the other documents the form "[Application for Declaration of Formal Equivalence of Foreign Degrees](#)". A possibility to check your foreign degree is [anabin](#). This database provides information how to evaluate foreign degrees and helps authorities, employers and private persons to evaluate qualifications from abroad into the German system.

Enrollment as a doctoral candidate/ Change to registration as a doctoral candidate:

Candidates accepted as doctoral candidate must enroll for the duration of the doctoral studies in accordance with the Act on Higher Education of the Land of Baden-Württemberg (Landeshochschulgesetz – LHG) in its current version. The enrollment is made via the C@mpus Management System. Information can be found at [Registering, applying and enrolling / University of Stuttgart](#).

Employees of the University of Stuttgart have the option not to enroll. If you wish to do so, please provide the completed and signed "[Erklärung für Hauptberufliche](#)" to the Central Administration.

Candidates holding a degree from the University of Stuttgart can change their course of study instead of enrolling as doctoral candidate.

Step 2: Doctoral studies

During your doctoral studies, please consider:

- If you have been accepted on conditions as doctoral candidate, you will need to fulfil these conditions in due time during your doctoral studies.
- The acceptance as doctoral candidate can be revoked if the doctoral candidate who mainly works on his/her doctoral thesis, does not submit it within six years. For doctoral candidate who are mainly occupied otherwise, a maximum time period of eight years applies. The time period starts at the date when the letter of acceptance as doctoral candidate had been issued. An extension from six to eight years may be requested with an informal letter to the chairperson of the doctoral committee (Vice Dean). The doctoral committee decides on the application.
- Parts of the doctoral thesis can be published in advance with your doctoral supervisor's approval. vice dean's approval is not necessary.
- According to PO §2 Abs.6, the doctoral thesis can be prepared publication-based in a cumulative form, if the supervisor approves the preparation of a publication-based doctoral thesis. The Department of Mathematics (*decision by the Mathematics doctoral committee on May 15, 2019*) in agreement with the faculty council (*decision of the faculty council on June 19, 2019*) has decided to allow cumulative doctoral thesiss. The Department's directives may be found on the homepage at [FB Mathematik/Promovierende/](#)
- After the doctoral thesis is finalized, the doctoral candidate submits it to his/her supervisor and waits for his/her approval. After the doctoral supervisor's release, the doctoral thesis can be submitted to the vice dean's office.

Step 3: Submission of doctoral thesis / Application for admission to oral examination

Please consider the following time periods from submitting your thesis until the oral examination:

- Around **one week** to approve the examination board (German = Prüfungsausschuss) (**two weeks** outside of term-time) by the doctoral committee
- Joining GS SimTech: the examination board must also be approved (**1 – 2 weeks**) additionally
- Around **six to eight weeks** for reporting, can take up to three months
- **Two weeks** period of perusal during teaching weeks (**three weeks** period outside of term-time)

The candidates submit's her/his doctoral thesis to the vice dean's office adding the doctoral supervisor's declaration that the achievements according to the written doctoral agreement have been met. This declaration form (Nachweis erbrachte Leistungen) can be found on the internal webpage – [internen Seiten des Fachbereichs](#) (*decision by the Mathematics doctoral committee on October 17, 2018*).

Doctoral candidates at the GS SimTech have to add also the confirmation concerning meeting the SimTech regulations.

Submission of the doctoral thesis implies the application for admission to the oral examination. If you had been accepted on conditions as doctoral candidate, you must provide proof that you fulfilled all conditions upon submission of your doctoral thesis. Please consider:

- The doctoral thesis should be printed in DIN A4 and can be written in German or English. It must contain brief summaries (abstracts) in German and usually in English which should not exceed two pages (per language) in DIN A4 format.
- According to PO §6 Abs. 2 Admission to the examination, the doctoral thesis **has to** contain a declaration signed by yourself stating that you wrote the doctoral thesis yourself except for explicitly cited references. The "Handreichung KI-Werkzeuge für Studierende" applies analogously.
- When submitting a **publication-based doctoral thesis** in a cumulative form it is mandatory to meet the contents' requirements as per the [Department's directive](#) (*decision by the Mathematics doctoral committee as of May 15, 2019 and faculty council as of June 19, 2019*).
 - According to the directives above, a cumulative doctoral thesis has to contain a corresponding statement for at least one of the included ("accepted") publications.
 - When submitting the doctoral thesis please add a letter from your supervisor stating she/he approves the cumulative doctoral thesis and certifying that the publication has been accepted by a recognized publication journal or conference oriented to mathematics.
- The candidate submits a digital version and the following number of the doctoral thesis in adhesive binding to the vice dean's office.
 - **1** for the main reporter (doctoral supervisor)
 - **2 – 3** to the other reporters
 - **1** for the Vice Dean
 - **1** for SimTech (if included)
- The doctoral thesis does **not yet** need to contain any reporter name or date of the oral examination. After the oral examination, this information must be included on the front pages of the copies delivered to the University Library for publication.

Step 4: Reviewing of the doctoral thesis

Reports:

- The doctoral supervisor is usually the main reporter and suggests at least one more reporter to the vice dean. In the case of two expert opinions, one should be external (= external to the university), or at least not from the same institute, if the subject classification of the work allows it. (*decision of the Mathematics doctoral committee of Oktober 19, 2022*).
- At least one reporter must be a full-time professor at the Department of Mathematics at the University of Stuttgart. Regarding SimTech doctoral studies, at least one reporter must belong to an external institution. For the appointment of all reporters, the vice dean obtains approval from the doctoral committee via an e-mail survey. The rights of the chairperson

of the doctoral committee remain unaffected (*decision by the Mathematics doctoral committee as of January 25, 2017*).

“Summa cum laude” Degree:

- If a “summa cum laude (with distinction)” degree becomes apparent, the doctoral committee's decision of 2006 remains that basically three expert opinions are required, one of which is external (= external to the University). (*decision of the Mathematics doctoral committee of Oktober 19, 2022*).
- In order to avoid delays, this "awarding report" should be named directly when the examination board is appointed. This must be done by means of a reference to an award in the room and a name proposal for the reporter by the supervisor at the time of submission of the doctoral thesis. The appointment of the examination board is then carried out on a regular basis. (*decision of the Mathematics doctoral committee of Oktober 19, 2022*).
- (*decision of the Mathematics doctoral committee of April, 2006*). In addition, in this case, a second additional examiner, representing the breadth of the subject, is appointed by the vice dean to the examination board by an urgent decision. The additional additional examiner is deleted without replacement. (*decision of the Mathematics doctoral committee of Oktober 19, 2022*).
- All approved changes apply immediately to newly started procedures, i. e. to all ongoing doctoral procedures for which the doctoral thesis has not yet been submitted on the day of the decision. (*decision of the Mathematics doctoral committee of Oktober 19, 2022*)
- In addition, upon approval of the doctoral candidate, all members of the doctoral committee can attend and ask questions at the oral doctoral examination (*decisions of the Mathematics doctoral committee as of November 23, 2005 and December 21, 2005*).

External reporters: By default, all reporters belong to the examination board. If external reporters cannot take part in the doctoral examination digitally or in person, a representative must be appointed. [Travel costs of external reporters](#) (information in German only) are usually reimbursed by the Central Administration. and approved before the examination. The necessary formalities are arranged by the secretariat where the person is supervised in consultation with the vice dean's office.

Official correspondence with the reporters: The vice dean's office sends the doctoral thesis to the reporters in advance digitally and by post and encloses a letters signed by the chairperson of the doctoral committee.

Duration of the evaluation procedure: A period of 6 - 8 weeks normally applies for the reports. The evaluation should normally be completed within three months (PO § 10 Abs. 1).

Step 5: Perusal of reports

After arrival, the examiner reports and the doctoral thesis are available for on-site perusal by the doctoral committee in ILIAS and in the vice dean's office (PO §10 Abs. 3(b)). During teaching weeks the time period for perusal is **at least 14 days**, outside of term-time **at least 21 days** (decision of the Mathematics doctoral committee as of October 16, 2013). The members of the doctoral committee are informed about the perusal via e-mail. Any objection can be addressed in writing

to the vice dean within the period of perusal (*decision of the Mathematics doctoral committee as of October 19, 2005*).

Step 6: Oral doctoral examination

Examination date: The doctoral candidate schedules the examination date in alignment with the members of the examination board and the chairperson. The doctoral supervisor informs the vice dean's office about the desired date and time. If possible, oral doctoral examinations should not take place outside of term-time. Outside of term-time, the month of August (school holidays) must be skipped (*decision of the Mathematics doctoral committee as of October 16, 2013*).

Examination committee: The vice dean appoints the chairperson and, if applicable, approves the representative of an absent reporter.

Appointment of an additional examiner: Besides the reporters, an additional examiner of the doctoral committee belongs to the examination board (*decision of the Mathematics doctoral committee as of February 01, 2006*). The additional examiner must represent the breadth of the subject. For the appointment of the additional examiners, the vice dean obtains prior approval from the doctoral committee in order to guarantee transparency.

Additional examiners must not be reporters and must belong to another institute than the doctoral supervisor. For doctoral supervisors who do not belong to any institute of the Department of Mathematics, additional examiners are defined in alignment with the vice dean (*decision of the Mathematics doctoral committee as of October 16, 2013*).

Talk and oral doctoral examination:

- The vice dean's office sends an invitation to the oral doctoral examination to the members of the doctoral committee, to external reporters (if any), to the Dean of the faculty and to the Rector of the University. In addition, the vice dean's office sends an invitation to the talk (open to university staff and candidates) to the colloquium distribution list.
- The chairperson of the examination board may, with the consent of the doctoral candidate, allow one member or, in justified exceptional cases, several members of the examination board to take part in the examination via videoconference. In this case, appropriate technical conditions must ensure the presence of the involved member of the examination committee. The doctoral candidate consent must be in writing before the start of the examination
- In the Department of Mathematics a public talk of, as a rule, **forty-five minutes** is integral part of the oral examination and is considered for the grading according to PO § 12. The additional regulations as of PO §11 Abs.5 do apply (*decision of the Mathematics doctoral committee on May 15, 2019*).
- The doctoral candidate is responsible for reserving and preparing the room for the talk and for the oral doctoral examination (usually the faculty room 8.122).
- The grading of the doctoral thesis, the oral examination and the determination of the overall grade is determined according to PO §12 and communicated to the doctoral candidate after the examination.

Step 7: Publication of doctoral thesis

After the oral doctoral examination, the doctoral candidate revises the doctoral thesis, if applicable, and considers any changes requested by the reporters. Publication of the doctoral thesis is defined in PO §13. You need to comply with the "Merkblatt für Doktoranden über die äußere Form der Dissertationen" (Information for doctoral candidate regarding layout of the doctoral thesis). After release of the final version by the doctoral supervisor, the doctoral candidate delivers a prescribed number of copies (as per doctoral degree regulations) to the University Library within one year after the oral doctoral examination. Information on this can be found on the University Library's webpage German only: [Abgabe Stuttgarter Dissertationen | IZUS / Universitätsbibliothek Stuttgart | Universität Stuttgart](#)

The University Library sends four copies to the doctoral supervisor. She/he verifies the copies, forwards **one copy** (in case of doctoral thesis within SimTech **two copies**) to the vice dean's office and releases the doctoral thesis for publication via a letter to the vice dean. On the basis of this letter, the vice dean releases the printed doctoral thesis and confirms to the University Library the delivery of the required copies on time.

After publication please send an abstract of the doctoral thesis in German and English to the vice dean's office and allow its publication on the Department's homepage.

Step 8: Doctoral degree certificate and completion of procedure

Upon request of the doctoral candidate, an English translation of the doctoral degree certificate will be prepared. The form can be found at [\(Formulare | Für Studierende | Universität Stuttgart\)](#)
This application may be submitted before the oral examination in the office of the vice-dean.

Linklist:

- <https://www.simtech.uni-stuttgart.de/sc/gs/>
- <https://www.gradus.uni-stuttgart.de/>
- <https://www.f08.uni-stuttgart.de/mathematik/promovierende/>
- <https://www.uni-stuttgart.de/forschung/nachwuchs/document/campus-registrierung-doktoranden-dt.pdf>
- <https://anabin.kmk.org/anabin.html>
- <https://www.uni-stuttgart.de/forschung/nachwuchs/promotion/>
- <https://www.uni-stuttgart.de/forschung/nachwuchs/promotion/fuenfschritte/>
- <https://www.uni-stuttgart.de/forschung/nachwuchs/promotion/einschreibung/>
- <https://www.uni-stuttgart.de/forschung/nachwuchs/document/aequivalenzpruefung.pdf>
- <https://www.uni-stuttgart.de/forschung/nachwuchs/document/erklaerung-immatrikulation.pdf>
- <https://www.ub.uni-stuttgart.de/forschen-publizieren/stuttgarter-dissertationen/>
- <https://www.student.uni-stuttgart.de/pruefungsorganisation/formulare/>