



GUIDELINES SUPERVISION OF THE DOCTORAL PROCEDURES DR. MED., DR. MED. DENT.

As of June 2024

Dear habilitated members of the Faculty of Medicine,

We are pleased that you are promoting young scientists and supporting them on their way to obtaining a doctorate. In this information sheet, we have compiled current information on the Dr. med. and Dr. med. dent. procedure in addition to the doctoral regulations. Most of the points also apply to the supervision of PhD and Dr. sc. hum. procedures. These differ mainly in the application procedure and the assessment of the project outline.

In addition to this information sheet, you will find further information on our homepage as well as a collection of FAQs, which is constantly updated and answers many questions about the doctoral procedure for you and your doctoral candidates.

If you have any questions, we will be happy to advise you and your doctoral candidates!

Doctoral office:

Geissweg 5, EG, Raum 1

Tel.: 07071/29-76865

promotionen@med.uni-tuebingen.de

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1 Takeover of the supervision of doctoral candidates

Supervisors undertake to facilitate the rapid progress of the work, to be available for regular professional advice, to facilitate scientific exchange and to support the supervision by other supervisors. The number of doctoral candidates per supervisor is limited as follows: for clinically active supervisors: 10 doctoral candidates. For non-clinical supervisors: 20 doctoral candidates.

1.1 Participation in the course Good Scientific Practice for supervisors

Regular participation (generally every three years) in one of the faculty events on "Good Scientific Practice for Supervisors" is a mandatory requirement. Detailed information regarding the available courses and registration can be found on our website:

<https://www.medizin.uni-tuebingen.de/de/medizinische-fakultaet/gute-wissenschaftliche-praxis>.

2 Registration and admission as a doctoral candidate

2.1 Requirements:

The doctoral procedure is exclusively open to medical doctors, dentists, and students enrolled in these respective disciplines.

To register for a doctoral thesis, candidates must obtain the approval of a supervisor, typically holding a habilitation (the criteria for eligible supervisors are outlined in § 4(2)c of the doctoral degree regulations). This habilitated supervisor is the individual responsible for the faculty and serves as the primary point of contact, not a supporting "direct supervisor" (co-supervisor) who may assist with laboratory training and guidance. This arrangement is formalized in a supervision agreement (see section 3.2).

A valid ethics vote or an approved animal experiment application must also be provided.

In order to be accepted as a doctoral candidate, the applicant must generally have studied or worked at the MFT or UKT or be currently studying or working here, i.e. there must be a connection to the MFT or UKT.

Foreign degrees can be considered if they are equivalent to the German state examination. Candidates can receive personalized guidance from the doctoral office regarding the required additional documents. The doctoral office can perform an initial assessment of the degree's equivalence. If this assessment is unclear, the documents must be forwarded to the Central Office for Foreign Education (ZAB) in Bonn for evaluation (see <http://anabin.kmk.org>). Please be aware that this review process at the ZAB can take several months.

The acceptance of applicants without a connection to the MFT/UKT is permitted only in exceptional cases, subject to a decision by the Doctoral Committee.

Doctoral candidates are required to attend the faculty course "Good Scientific Practice for Doctoral Candidates" after being accepted as a doctoral candidate. Participation is recommended after the initial months of active research.

Doctoral candidates are required to maintain a research log book for all research activities, provide regular progress reports to the research group, and adhere to the regulations in place at the supervising institution (e.g., patient and data confidentiality, vaccination requirements, occupational safety). The supervisor is responsible for instructing the doctoral candidate on these matters.

The research project should be completed within a reasonable timeframe. Please take this into consideration when selecting applicants.

Doctoral candidates must register with the faculty at the start of their doctoral thesis to verify that all formal requirements for the doctorate are fulfilled. Supervision of the procedure by the faculty is only granted upon registration.

2.2 External doctoral dissertations

For external doctoral projects, where the doctoral candidate is not enrolled at the faculty or employed at the UKT, or where the supervisor is not employed on a full-time basis at the faculty, additional information will be required. The specific requirements are outlined in the online form and the accompanying instructions.

If you are a habilitated supervisor **not employed full-time at the MFT**, but rather externally or at an academic teaching hospital, we kindly ask you to propose an additional supervisor with whom you would like to form a supervisory team. This will help ensure that the doctoral candidate is integrated into a scientific working group in Tübingen, thereby facilitating their training within the local university environment.

2.3 Project outline

Comprehensive information regarding the planned doctoral project will be required, which should be discussed and prepared in advance with the doctoral candidates.

The project outline is reviewed by the scientific advisor before acceptance as a doctoral candidate. It should be concise and precise, listing the key references from the current literature. This generally includes:

- Scientific knowledge of the research topic, with reference to relevant literature
- Objectives (hypotheses), material and methods: in particular statistical methods and e.g. for clinical studies population, inclusion criteria, case number estimation, for experimental studies samples, protocol, data sources (also: from an institution of the UKT or from external?), time schedule (max. 2000 characters): e.g. quarter 1, quarter 2, ..., indication of milestones, etc.
- Planned personal contribution of the doctoral candidate: Clearly outline the tasks and activities the doctoral candidate will perform, distinguishing between those undertaken independently and those carried out under supervision. Specify the candidate's involvement in the study's design, including conceptual and methodological contributions. Indicate whether the methods required for the study are already established within the research group or will be developed and implemented by the candidate. Additionally, describe the candidate's specific qualifications, skills, or experience that make them particularly suited for this research.
- Bibliography: List of 8-10 references, author, year, journal, volume, pages

2.4 Scientific Advisor

2.4.1 Tasks of the Scientific Advisor

To register for a doctoral procedure, a suitable project outline must be submitted. This outline will be reviewed by a "scientific advisor." This role may, but does not necessarily, include advising the doctoral candidate. Primarily, the scientific advisor is responsible for evaluating the research proposal before the candidate's acceptance. Scientific advisors do NOT need to be approached and give prior consent, but they may be contacted by applicants before submitting their application to the doctoral office. University professors are requested to accept at least as many requests for the role of "scientific advisor" as they have doctoral candidates themselves. The doctoral committee requests that, in reviewing the project proposals, particular attention be paid to the originality of the scientific question, the planned contribution of the candidate, and the supervision situation.

The scientific advisor reviews the project outline of the doctoral proposal and assesses whether the doctoral candidate can be accepted with the proposed project or if any changes are necessary. This is reported to the doctoral office via a form. There are no further obligations for the "scientific advisor" at this stage. When submitting the dissertation, the scientific advisor may potentially be appointed as a second examiner.

2.4.2 Independence of the Scientific Advisor

The "scientific advisor" must be habilitated at our faculty and independent of the project being carried out, with the competence to evaluate the doctoral project. There must be no dependency relationship between the supervisor and the "scientific advisor." This means that the "scientific advisor" must not be working in the same department as the supervisor. Additionally, the "scientific advisor" must not be a superior or subordinate, nor a direct colleague (i.e., having the same supervisor). Ideally, there should be no joint publications with the supervisor. This is checked by the doctoral office via PubMed.

Once the proposals for the scientific advisor have been reviewed on our side, the doctoral candidates will be informed and may contact them.

3 Application for acceptance as a doctoral candidate

3.1 Procedure for the doctoral candidate

The registration process for the doctoral programs Dr. med. and Dr. med. dent. is initiated online as the first step: In order to gain access to the online registration, doctoral candidates must send an e-mail to the Doctoral Office with a confirmation of their participation in the Good Scientific Practice for Doctoral Candidates foundation course ("Gute wissenschaftliche Praxis für Promotionsinteressierte") (4.1).

Admission to the Dr. med. or Dr. med. dent. program requires the successful completion of the First Medical Examination (M1) or the Preliminary Dental Examination. A copy of the certificate must be included with the application. Additionally, the application must be accompanied by a written supervision agreement between the doctoral candidate and the supervisor, a current curriculum vitae, and, if applicable, an ethics approval.

3.2 Sample supervision agreement

The collaboration between doctoral candidates and their supervisors must be formalized through a supervision agreement. To facilitate this, the Faculty Council of the Faculty of Medicine has approved a sample supervision agreement, which serves as a template and can be customized to suit individual circumstances. The template is available on the Doctoral Office's website.

The supervisor's responsibilities include providing regular guidance to the doctoral candidate throughout the course of the academic work. At the beginning of the project, a written outline detailing the objectives and planned implementation is developed and mutually agreed upon by the supervisor and the doctoral candidate. Furthermore, the habilitated supervisor advises the candidate on selecting supplementary training and educational activities, such as those offered by the Graduate Academy. To uphold standards of good scientific practice, the faculty requires supervisors to participate regularly in courses to ensure good scientific practice.

4 Notes before commencing practical work

4.1 Good scientific practice

All doctoral candidates are required to familiarize themselves with and adhere to the principles of good scientific practice as outlined by the DFG, the Faculty, and the University during their doctoral studies. The DFG Code and the Faculty's principles are available on the Faculty's website under the section "Good Scientific Practice."

Before registering for the doctoral procedure, all doctoral candidates must attend the basic course on good scientific practice for doctoral candidates ("Guten wissenschaftlichen Praxis für Promotionsinteressierte"). After attending, the doctorate must be registered within the next 12 months.

All doctoral candidates must complete the second course on good scientific practice after registering their doctoral thesis and before submitting their dissertation. Detailed information on course dates and registration can be found at <https://www.medizin.uni-tuebingen.de/de/medizinische-fakultaet/gute-wissenschaftliche-praxis>.

4.2 Research notebook

It is essential to document all research activities related to the research project in a research notebook (with pre-numbered pages and fixed binding) or through a certified electronic notebook (if utilized within the department). This ensures that the procedures and results are traceable and that the personal contribution is properly documented.

The research notebooks, along with all protocols and original data, must be retained at the institution where the work is conducted for a minimum of 10 years. Bound "Research Notebooks" in the University's corporate design are provided by the Doctoral Office. Detailed guidelines on how to maintain a research logbook are available on our website.

4.3 Promotion logbook

The faculty provides a logbook for all doctoral candidates to document the doctoral process, including supervision meetings, participation in courses, lectures, and conferences, as well as agreements between the doctoral candidate and the supervisor. These logbooks may be reviewed by the reviewers and the doctoral committee as part of the doctoral procedure. Therefore, it is in the best interest of the doctoral candidates to ensure thorough and accurate documentation.

4.4 Consultation by the ethics committee

Prior to the start of a doctoral dissertation, it must be clarified whether the research project requires review or approval from the ethics committee and whether such approval has already been obtained. Typically, the ethics committee of the Faculty of Medicine and the University Hospital Tübingen is responsible for this process. This committee also evaluates the recognition of approvals issued by ethics committees outside the jurisdiction of the Baden-Württemberg Chamber Act. Approval from the ethics committee must be secured **before** any work begins. Please note that the ethics committee does not issue opinions for studies already conducted. Consequently, doctoral candidates proposing such studies **will not** be accepted with the topic in question.

When conducting research involving human subjects, doctoral candidates must adhere to the ethical principles for medical research outlined in the World Medical Association's Declaration of Helsinki.

4.5 Animal testing approval

If animal experimentation is to be conducted as part of the doctoral dissertation, prior approval must be obtained from the Tübingen Regional Council before commencing the research project. Please note that this approval process can require significant time. It is essential to verify whether the necessary authorization has already been granted. Detailed information regarding the application process is available through the Animal Welfare, Veterinary Service, and Laboratory Animal Science Department at the University of Tübingen. Additionally, doctoral candidates may be required to complete a course in animal experimentation before initiating any such activities.

4.6 Statistical consultation

The Institute of Clinical Epidemiology and Applied Biometry provides support to members of the Faculty of Medicine in the planning and evaluation of laboratory and animal experiments, as well as clinical and epidemiological studies. This consultation service is offered free of charge and can be accessed through the Institute's homepage. Whenever possible, consultations should be scheduled during the project's planning phase to ensure timely determination of the required number of test subjects, test animals, or experimental repetitions.

4.7 Confidentiality

Doctoral students must treat all data obtained from the hospital and research institutes for their scientific work, or encountered during meetings and seminars, with strict confidentiality. This obligation applies to patient data as well as to research concepts and findings belonging to other members of the working group.

4.8 Active participation in scientific events

Scientific exchange and discussion are fundamental elements of good scientific practice and play a crucial role in the training of early-career researchers. Supervisors and heads of scientific working groups must ensure

that doctoral candidates have the opportunity to participate in scientific events within their working group and engage in collaborative exchanges with other working groups.

At the beginning of the doctoral period, it is advisable to discuss with doctoral candidates which regular working group meetings they should attend to present their research plans in a timely manner. Throughout the doctoral period, candidates should present and discuss their interim results approximately every three months.

4.9 Participation in events organized by the Graduate Academy

Upon acceptance by the faculty, all doctoral candidates become members of the university's Graduate Academy and are eligible to participate in its events. Further information can be found at the following link: <https://uni-tuebingen.de/forschung/nachwuchsfoerderung/akademische-personalentwicklung-graduiertenakademie/>.

In many cases, doctoral candidates may also have the opportunity to participate in structured doctoral programs. Detailed information is available on the Talent Academy website.

4.10 Information services of the doctoral office

We provide doctoral candidates with informational materials and FAQs about pursuing a doctorate, accessible through the homepage.

Additionally, a doctoral exchange event ("Promotionsbörse") is held regularly. This event offers attendees general information about doctoral studies and details on specific opportunities, such as doctoral colleges, graduate programs, and PhD programs. The event also includes a poster exchange featuring project opportunities and facilitates direct interaction with faculty scientists on-site.

5 Applications for admission to the doctoral procedure

5.1 Submission of the dissertation

Doctoral students can access the application form for admission, along with a list of required supporting documents, on the homepage.

5.2 Application for extension

If doctoral candidates are unable to submit their dissertation within three years of acceptance as a doctoral candidate, they may apply for an extension of this deadline with your consent as their supervisor. A form for this application is available on the homepage of the Doctoral Office. With your approval, the application may also be submitted informally via email to the Doctoral Office. Both you and the doctoral candidate will receive an email confirming the one-year extension of the deadline.

5.3 Information on plagiarism checks

For the plagiarism check, doctoral candidates must email an electronic version (PDF) of their dissertation to the Doctoral Office at (promotionen@med.uni-tuebingen.de). On the application for admission, doctoral candidates certify that this electronic version matches the paper version submitted in the clip folder. They also confirm their awareness that the use of external, unidentified sources constitutes an attempt to deceive.

We conduct a plagiarism check using the "PlagScan" plagiarism detection tool, after removing any personal data from the document. The resulting report highlights all sections where matches with other sources have been found and provides references to those sources. Both you and the doctoral candidate will receive the report by email, with a request to review it for any issues (i.e., ensuring all references are correctly marked). Once you both sign a declaration of non-objection, it must be submitted by post. Only after this step will the dissertation proceed to the review process.

5.4 Patent rights information

If there are plans to use the results of the doctoral thesis in any way under patent law, doctoral candidates must consult with the Faculty's Office of Technology Transfer prior to submitting the dissertation to the Doctoral Office.

5.5 The preparation of the dissertation

The faculty expects the dissertation to have an appropriate, orderly, and clear layout, including a table of contents, a well-defined structure, numbered chapters, page numbers, clear figures, and legible tables. **Further details on these requirements can be found in the "Dissertation Guidelines" available on the homepage of the Doctoral Office.**

We have also created a **checklist** outlining the formal requirements for the dissertation (available on the homepage). Doctoral candidates must review, tick off, and sign this checklist before submission. This process helps prevent delays caused by having to return the work for corrections and ensures more efficient processing.

The cover page and the second page must be designed in accordance with the specifications outlined in the doctoral regulations (see "Dissertation Guidelines "). Doctoral candidates will receive the final version with approval for printing.

The copies submitted for assessment and admission to the doctoral procedure must adhere to the following specifications:

- Format: DIN A4
- Printed on one side only
- Line spacing: 1 ½ lines; bibliography single-spaced
- Font size: Arial or Times New Roman, 12-point
- Legends may be printed single-spaced and in a smaller font size
- Margins: 3 cm on all four sides
- The dissertation may be written in either German or English; for English papers, a German summary must also be included.

The mandatory copies submitted by doctoral candidates to the University Library at the end of the doctoral procedure must fully correspond to the version of the dissertation submitted for review, with the exception of adjustments to the print format (refer to Chapter 5 and FAQ). The color scheme must also remain consistent. Any content modifications require prior approval from the supervisor, in accordance with § 15 (2).

Doctoral candidates intending to pursue a **cumulative dissertation** (incorporating their authored publications) must submit an application to the Doctoral Office in advance. Additional information, including the application form, is available on the homepage.

Guidance on proper citation practices can also be found on the Doctoral Office homepage and at events focused on good scientific practice.

6 Review process

6.1 Review of the written doctoral dissertation

Doctoral candidates should plan for a minimum of six months for the review process.

Once the complete documents of the doctoral candidate is available in the doctoral office, the dean will request the evaluations. The first and second reviewers are given approximately 2 months to prepare their review. If the scientific advisor remains independent from the primary supervisor, they may be asked to provide the second review. Reviewers are requested to conduct the evaluation in the form of a review and, if necessary, to suggest revisions. They will receive a form with a checklist and non-binding criteria for evaluating dissertations (these have been created by the doctoral committee). Afterward, the doctoral candidates will have the opportunity to revise their dissertation if necessary.

If the grades proposed by the two reviewers differ by more than 1.5 grades, or if a grade of *summa cum laude* is proposed, an additional review may be requested, or the Doctoral Committee may become involved in the evaluation process.

Once the assessment process is complete, the dissertation is made available for a two-week inspection period to all supervisors within the faculty. As a supervisor, you will also be notified and have the opportunity to raise any objections to the evaluation proposals during this period. Objections must be submitted via email to the Doctoral Office. If no objections to the acceptance of the dissertation are raised during this time, the dissertation is considered to have been definitively assessed, and the doctoral candidates will be notified by email. From this point forward, doctoral candidates will also have access to the reviews of their dissertation.

6.2 Oral examination

According to §12 of the doctoral regulations, the oral doctoral examination takes place in the form of a disputation, which is organized by the department in which the dissertation was written, e.g. as part of an institute colloquium. Following the end of the display period, the doctoral candidate will receive an email from the Doctoral Office requesting the organization of the disputation in coordination with the examiners within six weeks. Once the date, time, and location of the examination have been finalized, the Doctoral Office must be notified at least 14 days in advance. The Doctoral Office will then confirm the arrangements by issuing official invitations. Members of the Doctoral Committee are entitled to participate in the examination. Failure to announce the examination date in a timely manner may result in the need to reschedule or repeat the examination. With the consent of the examiners, a web-based examination may also be conducted upon request. Detailed information on the procedure is available in an information sheet on the homepage.

7 Print and publication of the mandatory copies

Upon successful completion of the oral examination and submission of a certified copy of the state examination certificate, doctoral candidates will receive "print approval" from the doctoral office. This approval signifies that they may proceed with the printing of the mandatory copies and initiate the online publication process. It is important to note that minor revisions may still be required at this stage. However, aside from these revisions, the printed version must align precisely with the version submitted for review.

As a general rule, the dissertation must be published electronically. In this case, the dissertation will be saved on the University Library's publication server and made freely accessible on the internet. Additionally, two printed copies must be submitted to the University Library. The doctoral candidate is responsible for ensuring that the electronic version of the dissertation matches the printed copies (see the University Library's homepage for further details).

Doctoral candidates should make a decision for consulting with you (the supervisor) regarding the electronic publication of the dissertation on the University Library's publication server. If any part of the dissertation or its results has already been published in a specialist journal, the candidate must seek clarification from the publisher regarding the possibility of electronic publication due to copyright considerations. As the dissertation supervisor, you must provide your consent for the electronic publication. A form for this declaration of consent is available on the doctoral office's homepage, and candidates will also receive it when granted print approval. Additionally, upon request from the supervisor, publication in the form of 30 printed copies may be permitted. Such a request can be submitted informally to the doctoral office.

If the dissertation is not to be published initially due to results being first published in journals that impose a retention period for secondary publications, the supervisor may informally request an retention period of up to two years for the dissertation's publication. During this time, the doctoral candidates may still proceed with completing the doctoral process.

The printed copies for the University Library must be formatted in DIN A5 size and printed double-sided. The layout of the individual pages, including margins, font size, line spacing, and other formatting elements, must remain consistent with the version submitted for review. As such, no reformatting is required for the final printing.

The cover page is to be printed on the outside of the cardboard cover (soft cover, with color selection at the candidate's discretion) as well as on the first page of the dissertation. Doctoral candidates will receive

templates for the binding format of the title page and page 2 upon receiving print approval (refer also to the "Dissertation guidelines" for further details).

Upon submission of the mandatory copies, the University Library will issue a confirmation, which is sent directly to the doctoral office.

Further information, particularly regarding the online publication of your dissertation on the University of Tübingen's publication server (TOBIAS-lib), can be found on the University Library's website (<https://uni-tuebingen.de/einrichtungen/universitaetsbibliothek/publizieren-forschen/publizieren/dissertationen/>).

Doctoral candidates may also contact the University Library's Dissertation Office for any inquiries related to electronic or printed dissertations.

If doctoral candidates have achieved results within their doctoral thesis that may be eligible for protection, they should contact the Technology Transfer Office of the Faculty of Medicine as soon as possible. The office will provide guidance on matters such as inventions, patents, research transfer, and technology transfer.

8 Certificate

Once the University Library has confirmed the publication of the dissertation, the doctoral certificate will be issued by the doctoral office. Upon finalization of the certificate (usually within two to four weeks), the doctoral candidate will be notified by email that it has been sent or is available for collection. The copies of the dissertation submitted for assessment will be disposed of in a manner that ensures data protection.

The doctorate is considered complete, and the right to use the doctoral degree is granted upon the award of the doctoral certificate.

9 Summary of quality assurance measures in doctoral procedures Dr. med. and Dr. med. dent.

- Association of doctoral candidates with MFT/UKT
- Mandatory attendance at the " Good Scientific Practice" event prior to the registration of the doctoral procedure.
- Supervision by university professors, junior professors and private lecturers working full-time at MFT or UKT and a limitation on the number of doctoral candidates per supervisor
- Review of the project proposal by the scientific advisor, existing valid ethics vote or approved animal testing application
- Compulsory participation for the doctoral candidate in the "Good Scientific Practice for Doctoral Candidates" course during the research phase.
- Independent review process, incorporating the recommendations of the faculty.
- Publicly announced oral examination.