

Doctorate Regulations for the Medical Faculties of the University of Heidelberg to achieve the degree of Doctor of Medicine or Dentistry (Dr. med. or Dr. med. dent.)

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§ 1 The doctorate

- (1) The Medical Faculties award the academic degree of *Doktor/Doktorin der Medizin*¹ (Dr. med.) or *Doktor/Doktorin der Zahnheilkunde*² (Dr. med. dent.) on the basis of work completed during the doctoral studies or on an honorary basis.
- (2) The Medical Faculties accept the key recommendations of the Senate of the University of Heidelberg for promoting the rising generation of scientists³ and implement them accordingly.

¹ Doctor of Medicine

² Doctor of Dentistry

³ "Leitende Empfehlungen des Senates der Universität Heidelberg zur Förderung des Wissenschaftlichen Nachwuchses"

§ 2 Elements of doctoral studies

- (1) The elements of the doctoral studies consist of developing new scientific findings and serves as evidence of ability to produce independent academic work.
- (2)
This work takes the form of a dissertation and an oral examination.

§ 3 Decision-making bodies for doctoral studies

- (1) Unless otherwise specified, decisions in the context of doctoral studies are taken by the Doctoral Candidate Admissions Conference (*Promotionskonferenz*).
- (2) The Doctoral Candidate Admissions Conference is made up of professors and associate professors from the Faculty Council who have a voting right as well as the chair of the Doctoral Committee (*Promotionsausschuss*) or his or her deputy. The Doctoral Candidate Admissions Conference is chaired by the dean or a representative appointed by him or her.
- (3) The Doctoral Candidate Admissions Conference elects at least one Doctoral Committee consisting of at least 6 members from the circle of professors and associate professors in the faculty. The term of office of these members is three years with the possibility of re-election. Each committee elects a chair and deputy from its members
- (4) The Doctoral Candidate Admissions Conference assigns tasks to the Doctoral Committee according to § 5 to § 11.

§ 4 Requirements for acceptance for doctoral studies

- (1) Candidates may be accepted for doctoral studies if having completed a degree they have successfully taken the medical or dental examination required by the *Approbationsordnung für Ärzte/Ärztinnen*⁴ or *Prüfungsordnung für Zahnärzte/Zahnärztinnen*⁵ and submit the documents cited in § 5, paragraph 2.
- (2) Notwithstanding paragraph 1, an application for acceptance for doctoral studies can be submitted even before a degree in medicine or dentistry is successfully completed. A provisional acceptance becomes null and void if the candidate ultimately fails to pass the final examination in the medical or dentistry degree according to the *Approbationsordnung für Ärzte/Ärztinnen*.
- (3) Group dissertations are not permitted.
- (4) If the dissertation project is completed in an institution whose head is not a member

⁴ Regulations Governing the Licensing of Doctors

⁵ Examination regulations for dentists

of the faculty, a declaration of consent must also be obtained from this head.

- (5) Candidates who have completed their exam abroad can be accepted for doctoral studies if they have passed a foreign medical or dental examination which is on a par with the German examination in terms of the requirements for the preparatory training and the course of studies. The dean will decide whether training or foreign examinations are to be recognised as equal with their German counterparts after hearing the views of the *Zentralstelle für ausländisches Bildungswesen der Kultusministerkonferenz*⁶ in Bonn or another equivalent examining body that can establish parity.
- (6) On the recommendation of the Doctoral Committee, if equivalence does not apply, the dean can impose conditions for acceptance for doctoral studies (e.g. aptitude tests in certain areas of medicine or dentistry) and admit the candidate for doctoral studies as and when he or she passes the aptitude test. The aptitude test can be retaken once.

§ 5 Registration and admission as a doctoral student

- (1) For admission as a doctoral student, an application must be addressed to the chair of the Doctoral Committee. The Doctoral Committee decides whether or not a candidate is to be admitted.
- (2) The following must be enclosed with the application for acceptance for doctoral studies:
 - Specification of the anticipated topic for the dissertation together with a brief outline;
 - Assurance of academic supervision by a professor or associate professor of the faculty;
- (3) Admission can be denied if:
 - The documents are incomplete;
 - The topic chosen for the dissertation is obviously unsuitable or does not fall within the faculty's remit;
 - The applicant has already undertaken more than one unsuccessful attempt to study for a doctorate;
 - There are grounds which would justify the retraction of an academic degree or an academic degree has already been withdrawn.
- (4) A decision on the application should generally be taken within six weeks during term time. The candidate must be notified in writing that his or her application has been turned down with the reasons for this decision. This also applies to the application for acceptance for the doctorate examination (§ 8).

⁶ Central Office for Foreign Education at the Standing Conference of the Ministers of Education and Cultural Affairs

- (5) In accepting a candidate as a doctoral student, the faculty undertakes to grade the dissertation as an academic piece of work and support the doctoral student in the preparation of the same.
- (6) The doctoral student is obliged to register with the university unless he or she is already a member of the university.
- (7) The doctoral studies should generally be completed within three years. A doctoral student can register for a maximum of five years.

§ 6 Academic supervision of doctoral student

- (1) Any professor or associate professor belonging to the Medical Faculty of Heidelberg or the Medical Faculty of Mannheim can supervise doctoral students. The right to supervise doctoral students can also be assigned to qualified scientist colleagues (e.g. junior scientist group leaders) by the rector at the suggestion of the faculty. The principles of the key recommendations of the Senate of the University of Heidelberg for promoting the rising generation of scientists dated 20.09.05 must be observed.
- (2) An agreement is concluded between the doctoral student and the supervisor which sets out the subject of the doctoral studies, the anticipated duration of the doctoral studies and in particular a work schedule generally spanning a maximum of three years. The progress of the dissertation project should be discussed at regular intervals. The agreement also contains a binding declaration by the supervisor that he or she will provide ongoing supervision of the dissertation project. This may include the nomination of a successor or deputy where applicable. The document will be kept by the supervisor until the studies are complete and the doctoral student is also given a copy. Any colleagues with a doctorate who are acting as co-supervisors must be named and be acknowledged in the dissertation.
- (3) The Faculty Council can set down guidelines for doctoral studies which may prescribe, for example, that doctoral students attend interdisciplinary conferences for doctoral students or take part in international doctorate programmes, or that doctoral students hold workshops in a subject area or group of subject areas with a presentation of doctorate projects.
- (4) At the request of the doctoral student, the Doctoral Committee will endeavour to find a professor or associate professor from the faculty to supervise the doctoral student.
- (5) For work not conducted in a scientific or clinical institution within the faculty under the immediate supervision of a member of the faculty, as described in paragraph 1, but in an institution that is not part of the respective medical faculty, consent must have been received from the head of this institution for the dissertation to be submitted.
- (6) If the doctoral student is working in a scientific or clinical institution in the faculty, the consent of the management of this institution to use the operating facilities of this institution is a prerequisite. Consent may only be withheld for compelling reasons.

§ 7 Dissertation

- (1) The dissertation must meet scientific standards and demonstrate the doctoral student's ability to produce independent academic work in the subject of his or her doctoral studies.
- (2) The dissertation is generally to be written in German or English. In exceptional circumstances and on presentation of a written application, the Doctoral Committee may permit the doctoral student to submit a dissertation written in a different language if assessment by professors or associate professors in the faculty is possible.
- (3) The dissertation can already have been published, either in part or in full.

§ 8 Acceptance for doctorate examination

- (1) On completion of the dissertation, the doctoral student submits a written application to the Doctoral Committee for acceptance for the doctorate examination. The following must be enclosed with the application:
 1. Copies of the dissertation in the quantity stipulated by the deanship responsible;
 2. The certificate indicating that the candidate has passed the medical or dental examination or an application as described in § 4, paragraph 2;
 3. A curriculum vitae;
 4. Any publications by the candidate which may have arisen from the dissertation or been accepted for printing as a manuscript;
 5. Where applicable, a declaration by the supervisor that he/she consents to the submittal of the dissertation. If the dissertation has been produced in an institution outside of the faculty, the scientist from this institution acting as supervisor must declare his/her consent;
 6. A declaration by the candidate that he/she has not submitted an application for doctoral studies in medicine or dentistry to any other institution or already unsuccessfully undertaken doctoral studies;
 7. A declaration by the candidate that the dissertation submitted is his/her own work and that he/she has not used any sources or aids other than those explicitly quoted;
 8. Where applicable, a declaration by the candidate that the guidelines contained in applicable animal welfare legislation have been complied with (approved application for animal testing) or in the case of clinical trials that the consent of the ethics committee has been obtained. Copies of any consent must be submitted;
 9. An abstract of the dissertation in German and/or English in the quantity stipulated by the deanship responsible;

§ 5, paragraph 2, applies accordingly.

- (2) The decision on whether a candidate is accepted for the doctorate examination is taken by the Doctoral Committee.
- (3) Acceptance is to be denied if:
 - The requirements for acceptance for the doctorate examination are not met;
 - The documents listed in paragraph 1 are not complete;
 - The dissertation does not fall within the scientific area of medicine or bears no connection thereto;
 - Circumstances apply which according to regional law would prohibit the conferral of a doctorate or justify the retraction of an academic degree;
 - The candidate has already acquired a doctorate in the respective discipline (medicine or dentistry) or
 - The candidate holds a doctorate in the respective discipline (medicine or dentistry) acquired abroad which entitles him or her to use the title of Doctor in Germany;
 - The candidate has already undertaken more than one unsuccessful attempt to study for a doctorate;
- (4) The candidate must be notified in writing if his or her acceptance application is turned down, with reasons for this decision and instruction on his or her right to appeal.

§ 9 Assessment of dissertation

- (1) The dissertation is to be assessed in writing by at least two assessors from the circle of professors and associate professors in the relevant faculty. In general, the supervisor of the dissertation acts as first assessor. This also applies if he/she is no longer a member of the faculty. Further assessors can be appointed by the Doctoral Committee and in the case of topics in overlapping areas they can also belong to a different faculty.
- (2) The assessors should generally be appointed within two months of the work being submitted, and certainly no later than in the next meeting of the Doctoral Committee held after this period.
- (3) The assessors grade the research objective, presentation and academic weight of the dissertation and suggest to the Doctoral Committee whether the dissertation should be accepted or rejected. If the dissertation script is accepted, they grade it according to the system set out in § 10, paragraph 1. They can recommend conditions for the final version of the dissertation.

§ 10 Grading and acceptance of the dissertation

- (1) The Doctoral Committee rules on the acceptance and grading of the dissertation, taking into account the reports it has gathered. The Doctoral Committee can also request external reports and impose conditions for amendments to the

dissertation. The Doctoral Committee submits the dissertation to the Doctoral Candidate Admissions Conference for acceptance. In the period between the invitation and the ruling, dissertations can be viewed in the deanship by the members of the Doctoral Candidate Admissions Conference. The grading criteria drawn up by the faculty for assessing the written element of the doctoral studies are enclosed with the Doctorate Regulations as an appendix.

The following classes are awarded:

- For an outstanding achievement: summa cum laude
- For an excellent achievement: magna cum laude
- For a good achievement: cum laude
- For an adequate achievement: rite

Intermediate grades are not permitted.

- (2) To grade a dissertation "summa cum laude", the Doctoral Committee consults two additional external assessors.
- (3) If the dissertation is rejected by the Doctoral Candidate Admissions Conference, the candidate may submit a new dissertation once, subject to an application for a new doctorate process. The candidate must be notified in writing if his or her dissertation is rejected, with reasons for this decision and instruction on his or her right to appeal.

§11 Oral element of doctoral studies

- (1) If the dissertation is accepted, the chair of the Doctoral Committee designates an examining committee from the circle of professors and associate professors in the faculty.
- (2) The examining committee consists of three members. The supervisor is generally a member of the examining committee; he or she can still remain on the committee even if he or she is no longer a member of the faculty.
- (3) The oral examination generally lasts around an hour and focuses on the subject of the dissertation and two other subjects in medicine or dentistry. The candidate should be examined particularly closely on the area covered by his/her dissertation. The examination as a whole is graded as "passed" or "not passed". If the candidate passes the oral examination, the grade for the doctorate corresponds to the grade of the dissertation.
- (4) If the candidate does not pass the oral examination, he/she can retake the exam once more within a period of six months. If he/she fails to pass the exam again this time, the doctoral studies come to an unsuccessful conclusion.
- (5) The medical or dental examination as defined in the *Approbationsordnung* for doctors or dentists is the generally recognised oral examination if no more than 3 years have passed between this and the opening of the proceedings for the conferral of a doctorate. The chair decides on the basis of the documents submitted by the candidate to what extent the candidate can be exempted from the oral examination.

§ 12 Publication of the dissertation

The dissertation must be published at the end of the doctoral studies. To this end, the candidate must as a rule give the faculty a minimum of 8, but no more than 15, presentation copies of his or her dissertation.

Publication can take the form of:

- a) Printing as a bound book or photocopy
- b) In a journal or as self-contained publication in a publishing house if evidence of a minimum circulation of 150 copies can be provided or
- c) An electronic version (online process) in a data format and on a data carrier to be agreed with the university library; the doctoral candidate thus assigns the university library and the *DDB (Die Deutsche Bibliothek*⁷) in Frankfurt/Leipzig the right to publish the electronic version on data networks.

If published in the manner described in c), an abstract of the dissertation must also be made available on an electronic data carrier for publication by the faculty. A contribution to expenses may be levied for this.

§ 13 Conferral of the degree of Doctor of Medicine or Dentistry

(1) If the candidate has passed the medical or dental examination conducted in accordance with the *Approbatonsordnung für Ärzte/Ärztinnen* or *Prüfungsordnung für Zahnärzte/Zahnärztinnen*, or has met the requirements set out in § 4, paragraphs 5 and 6 and submitted the presentation copies, he or she is awarded the doctorate by being presented or issued with the doctorate degree certificate. The certificate contains the title of the dissertation and the grade awarded for it and states the date on which the doctoral studies were successfully completed as the date on which the doctorate was awarded. It is signed by the dean of the respective faculty.

- (2) The right to use the title of Doctor is only acquired on receipt of the doctorate degree certificate.
- (3) A doctor who received his degree from the Medical Faculty of Heidelberg or the Medical Faculty of Mannheim of the University of Heidelberg can request an anniversary certificate 50 years after the original doctorate degree certificate was issued. A contribution to expenses must be paid for this.

§ 14 Conferral of the honorary degree of Doctor of Medicine or Dentistry (h.c.)

- (1) For outstanding merits in the fields of medicine or dentistry, including overlapping areas, the faculty can award the honorary degree of *Doktor/Doktorin der Medizin/Zahnmedizin ehrenhalber* (Dr. med. h.c./Dr. med. dent. h.c.), subject to the consent of the Senate.
- (2) An application from at least two members of the circle of professors and associate professors in the faculty is required for this degree to be awarded. The professors and associate professors on the Faculty Council decide on the application with a three-quarters majority of those members present who have a voting right. To prepare for its decision, it appoints two commentators from its midst.

⁷ The German Library

- (3) The degree of Dr. med. h.c. or Dr. med. dent. h.c. is awarded by presenting the specially prepared certificate, signed by the dean, which must highlight the achievements of the doctoral candidate.

§ 15 Retraction of acceptance; invalidity of elements of doctoral studies

- (1) If it transpires before the doctorate degree certificate is presented that the candidate has feigned or forged a requirement for acceptance or that material requirements for acceptance were erroneously supposed to be fulfilled, the acceptance for the doctoral studies can be retracted. The same applies if circumstances become known which according to regional law would justify the retraction of the doctorate.
- (2) If it transpires before the doctorate degree certificate is presented that the candidate has lied about an element of his or her doctoral studies, individual or all elements of the doctoral studies can be declared invalid. In serious cases, the acceptance for doctoral studies can be revoked.
- (3) The decisions described in paragraphs 1 and 2 are taken by the Doctoral Candidate Admissions Conference. Before a ruling is made, the candidate concerned must be heard. A written ruling must be sent to the candidate setting out the reasons behind it and instructing the candidate involved on his or her right to appeal.

§ 16 Retraction of the doctoral title

- (1) The retraction of the doctorate is based on regional legal provisions. If these provisions do not stipulate which body is responsible for revoking a doctorate, the responsibility falls to the Doctoral Candidate Admissions Conference.
- (2) Before a ruling is made, the candidate concerned must be heard. A written ruling must be sent to the candidate setting out the reasons behind it and instructing the candidate involved on his or her right to appeal.
- (3) Paragraphs 1 and 2 apply to the retraction of an honorary doctorate accordingly.

§ 17 Coming into force, transitional provisions

- (1) These Doctorate Regulations come into force on the first day of the month following publication in the Rector's Bulletin. They simultaneously supersede the Doctorate Regulations for the Medical Faculties of the University of Heidelberg to achieve the degree of Doctor of Medicine or Dentistry (Dr. med. or Dr. med. dent.) dated 8 December 2004 (Rector's Bulletin dated 20.12.04).
- (2) For doctoral studies already commenced at the time when these Doctorate Regulations came into force, the Doctorate Regulations cited in paragraph 1 can be applied on application, provided that the *Landeshochschulgesetz*⁸ does not preclude this.

Appendix 1

⁸ State law on universities and colleges

Basic principles of the Medical Faculties of the University of Heidelberg to ensure good scientific practice

This text responds to the recommendations of the *Deutsche Forschungsgemeinschaft (DFG)*⁹ and *Hochschulrektorenkonferenz (HRK)*¹⁰ on this matter.

1. Basic principles of good scientific practice

Anyone involved in science (and this includes doctoral students) is obliged to honour the basic principles of good scientific practice and demonstrate these in their own conduct. These basic principles must be conveyed to students and the rising generation of scientists. Professors bear a particular responsibility in this. According to the recommendations of the *DFG* ("Self-monitoring in science" commission, January 1998), the following general principles apply to good scientific practice:

- Compliance with the rules of scientific work;
- Documentation of the results of work, including secured storage of primary data;
- Rigorous self-criticism in terms of work results and conclusions drawn from these;
- Honesty with respect to the significance of contributions of third parties to own work;
- Responsible supervision of rising generation of scientists;
- Unconfined coordination of contributions of all members of a working group by the leader;
- Publication of work results and publicising of all conditions required to understand these.

2. Violations against the rules of good scientific practice:

The following are deemed to be a violation against the rules of good scientific practice and possibly scientific fraud or abetting scientific fraud:

- Invention, falsification or suppression of data;
- Plagiarism;
- Surreptitious authorship in publications;
- Omission of rightful authorships;
- No or insufficient scientific discussion within the working group;
- Inadequate supervision of doctoral students;
- Loss or insufficient documentation of original data;
- Lack of instruction of those involved in research on the rules of good scientific practice;
- Defamatory statements in respect of good scientific practice;
- Breach of confidence as assessor or supervisor.

3. Responsibility for implementation of the rules of good scientific practice:

Every scientist is responsible for his/her own conduct in the context of scientific work. Anyone heading a working group bears responsibility for ensuring that the foundations for good scientific practice are present within the group he or she is heading and that the rules are observed. This requires active communication within the working group, but in particular the disclosure of scientific data as part of the constant discussions within the group. It is therefore the task of leaders of scientific working groups to ensure that all members of the group are aware of their rights and duties in respect of good scientific practice. They must put in place the framework for proceeding according to these rules.

⁹ German Research Foundation

¹⁰ German Rectors' Conference

Particular emphasis must be placed on ensuring that the hypotheses, theories and above all the scientific data prepared by the individual members of the group are discussed openly and examined critically. Managing a scientific working group requires presence and an overview. Where these cannot be assured to the requisite extent, managerial tasks must be delegated.

4. Supervision of doctoral students

Before the actual work begins, the supervisor draws up a written outline of the aims and methodology of the planned project together with the doctoral student in question. The outline contains the written notice that the doctoral student has been instructed by the supervisor on the rules of good scientific practice. If conflicts arise between the parties during the course of the work, the dean or the chair of the Doctoral Committee can be called in as an arbitrator.

5. Obligatory documentation requirement

Primary data as a basis for publications remain accessible within the working group in which they were created for ten years on durable and backed-up data carriers. The respective scientist is responsible for this. He/she bears the obligation to produce supporting documents to ensure due logging of all proceedings. All the detailed steps of every experiment and every numerical calculation must be logged so that if necessary a person with the requisite knowledge can repeat the experiment or follow the basic principles behind the calculation. The reproducibility of a scientific experiment is its main test. Reports and workbooks must have a hard cover and the pages must be numbered all the way through; no pages may be removed. They must be kept in a safe place. The disappearance of originals from a laboratory is a violation against the basic rules of due scientific care and constitutes prime grounds for suspicion of dishonest behaviour or gross negligence.

If a scientist moves to a different institution, the original data as a rule remains in the place where it was collated. In special individual agreements between the “old institution” and the “new institution” in which the scientist will work, different provisions for storing the original data can be made. The arrangements agreed for storing the reports must be logged on the original data carrier and be signed by the persons involved.

6. Publications, authorship

Authors of scientific publications are jointly responsible for their content. So-called “honorary authorship” is precluded.

In publications which are particularly setting out new scientific results, the results must be described in full and comprehensibly. Own and third-party preparatory work must be shown fully and correctly (quotes). Results already published at an earlier date must be clearly shown and be reproduced in the scope required in order to understand the context.

Only those people who have actively contributed materially to the conception of the studies or experiments, the preparation, analysis and interpretation of the data and the formulation of the manuscript, and who have consented to the joint publication, i.e. bear a joint responsibility for the same, should be named as authors of an original scientific publication. The extent of the contribution of doctoral students to a publication should also be credited, with acknowledgement of their first authorship where applicable.

Appendix 2

Recommendations for assessing dissertations

The following criteria should essentially be taken into account by the referee (supervisor) and, as far as possible, the co-referee as well when assessing a dissertation:

1. The aptitude of the doctoral student for scientific work and critical analysis, including his or her ability to independently develop solutions to predefined problems using knowledge obtained through studying literature and methodological principles conveyed by the supervisor.
2. The suitability of the methods applied for obtaining and critically reviewing data and information and interpreting them.
3. The level of personal commitment and activity with which the task set was tackled, the logical planning of work and structuring of the task as a whole, and whether work was completed on time.
4. Editorial aspects of the dissertation: length and proportioning of the dissertation, setting out of the basics, the research subject, the methodology applied for research, the results (including tables and diagrams) and the bibliography, style and phraseology.

In addition to the general criteria, the following recommendations are given for grading (*):

3 = Rite:

- a) Observational studies (e.g. “retrospective studies” without any major new perspectives, basic case scenarios, case histories of more unusual cases.
- b) Experimental, largely comprehensible work under instruction using established methods.
- c) Theoretical work of a basic, largely referential nature.

2 = Cum laude:

- a) Independent observational studies with clear question as a starting point for obtaining new scientific knowledge.
- b) Experimental work involving various established complex methods with independent completion of the experiments, planning of work and structuring of the task as a whole by the doctoral student.
- c) Theoretical work which for the scientific problem set shows a significant degree of initiative on the part of the doctoral student in the development of scientific solutions.

1 = Magna cum laude:

a) Ambitious observational studies which have resulted in new scientific knowledge (generally the acceptance of a publication in a peer-reviewed scientific journal) and have largely been planned and completed independently by the doctoral student.

b) Experimental, methodologically complex work which has resulted in new scientific knowledge (generally the acceptance of a publication in a peer-reviewed scientific journal), including new methods or methods modified by the doctoral student, largely planned and completed independently by the doctoral student.

c) Theoretical work which, based on comprehensive processing of literature and critical analysis of existing data and opinions, has resulted in new scientific findings or opinion (generally the acceptance of a publication in a peer-reviewed scientific journal) independently developed and convincingly reasoned by the doctoral student.

Summa cum laude:

a) Work which has resulted in major scientific findings (publication in peer-reviewed scientific journals with the doctoral student as first author) with new, original research or observational methods which go beyond 1a) and have been independently developed and implemented by the doctoral student.

b) Experimental work with major new scientific findings (publication in recognised scientific journals with the doctoral student as first author) which was acquired on the basis of an independently devised test plan using independently developed research methods and shows a high degree of originality.

c) Theoretical work which has resulted in major new scientific findings (publication in recognised scientific journals or book series with the doctoral student as first author). These were made possible by a new, innovative approach and a complex theoretical model, both of which were independently developed and convincingly demonstrated by the doctoral student.

* In terms of these recommendations, a study is experimental if the influencing factors to be studied are controlled by the researcher him- or herself or on the basis of a process he or she has specified, such as in-vitro experiments, animal tests and randomised clinical trials. Studies where the influencing factors are only established (observed), as in the case of controlled case studies or cohort studies for example, are pooled under observational studies here. Theoretical denotes work where the doctoral student has not collected his or her own data.

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