

Rules and Requirements
of the
PhD Program
(Doctoral Program “Doctor of Philosophy”)

at the
Medical University of Vienna

Goals

§1. The PhD Program at the Medical University of Vienna aims at the further development of the competence for self-employed scientific work as well as at the training and support of the scientific offspring on the basis of a scientific attitude corresponding to the principles of the Medical University of Vienna (GOOD SCIENTIFIC PRACTICE – Ethics in Science and Research, decision of the Faculty Council of the former Medical Faculty of the University of Vienna as of October 12, 2001 as amended). Special emphasis shall be placed on multidisciplinary of the topic.

The doctoral candidates are considered by the university as “Early Stage Researchers“. The doctoral candidates receive the qualification to exercise science as a profession. After a successful training, they have to comply with the profile specified below:

- a. A systemic understanding of a study field and proficiency in the skills and methods associated with this field;
- b. Ability to plan, design, implement and adapt a research project with scientific integrity,
- c. Production of original research output which increases the borders of knowledge by the development of a substantial research work,
- d. Ability to make the research output available to the scientific society according to national and international publication standards,
- e. Ability for critical analysis, evaluation and synthesis of new and complex ideas,
- f. Ability to communicate with the professional environment, the scientific community and the society in general about basic questions of science and scientific politics,
- g. Ability to promote technological, social and cultural progress within an academic and professional context in a knowledge society.

Admission Requirements

§2. General admission requirements for the PhD Program are:

- Final degree in the diploma studies of Medicine or Dentistry
or
- Final degree in any natural scientific / technical, subject-relevant or subject-related diploma studies
or
- Final degree in any renowned national or international master studies that are equal to the above-mentioned diploma studies. The rectorate decides about the equality in the course of the admission procedure.

Duration of the PhD Program

§3. The PhD Program comprises one study period with a minimum duration of 6 semesters (180 ECTS). The whole extent of courses amounts to 30 semester hours and accounts for 16,7 % of the whole duration of studies (target value is a 40-hour week). The remaining time (83,3 %) is available for the composition of the thesis project (see § 6).

Academic Degree

§4. Graduates of the PhD Program are awarded the academic degree „Doctor of Philosophy“, in short „PhD“, the title following the last name. E.g. for graduates in basic medical studies the degree is Dr.med.univ. or Dr.med.dent. <Name>, PhD (in English <Name>, MD PhD or DD PhD).

Organization

§5. The doctoral studies at the Medical University of Vienna are primarily organized in the form of interdisciplinary thematic programs.

(1) CONTENTS OF PROGRAMS: The programs gather interested university members of individual organizational units/clinics with the goal of offering a comprehensive and high-quality training program in the respective subject areas. The doctoral candidates shall compose their thesis project within the course of the program and additionally attend the required courses. The involvement of institutions and organizations outside of the Medical University is possible as long as the educational value is obvious.

(2) NAME OF PROGRAMS: The composition and titles of the programs originate from the initiative of the university members interested in the organization of such a program. The programs shall constitute a broad topical unity within the wide range of fields at the Medical University of Vienna involving scientists of several organizational units/clinics. The list of programs is published by the curriculum director.

(3) ORGANIZATION OF PROGRAMS: The smallest organizational units are the supervisors who are project leaders experienced in the instruction of doctoral candidates and who bring their thesis positions as well as the payment of the thesis positions in the frame of research projects into the programs and participate actively in the training program. The supervisors are responsible for the organization and composition of the thesis and the accompanying courses (e.g. seminars, journal clubs). Each program is presided by an appointed program coordinator (curriculum coordinator) who is responsible for the coordination of the program tasks. The program coordinator represents the program and reports to the curriculum director. Since the language of biomedical research and related research areas is English, the programs and accompanying courses are also held in English. Therefore doctoral candidates are required to have a solid command of the English language. In exceptional cases courses may also be held in German if well grounded.

(4) ESTABLISHMENT OF PROGRAMS: Requests for the establishment of thematic programs can be submitted to the curriculum director and have to refer to the research areas as defined in the development plan. The requests have to include information on

- title,
- speaker,
- educational goal,
- doctoral thesis projects,
- qualification profile of supervisors,
- form, number, contents and lecturers of intended courses,
- used techniques,
- literature.

The curriculum director renders an expert opinion on the requests and modifies them accordingly. Following the expert opinion of the curriculum commission, the request is either granted or rejected.

Criteria for the evaluation of a request are as follows:

- structure of request,
- relation to scientific strategy of university,
- intra-university, national and international cooperation,
- significance for development of university,
- critical mass for the supervision of doctoral candidates and conduction of accompanying courses,
- reviewed and funded thesis projects,
- qualification of supervisors.

(5) QUALITY CRITERIA FOR SUPERVISORS:

The supervisors of thesis projects must

- pursue scientific academic research work themselves actively (documented by a number of high-quality publications during the last 6 years),
- have been involved in the acquisition of third-party funds within the last 6 years;
- have experience and engagement in the supervision of doctoral candidates,
- provide evidence of the education of doctoral candidates within the last 6 years and of publications with doctoral candidates/postdocs as first authors.

Courses

§6. The PhD Program comprises a comprehensive training in the fields of the respective thesis topic as well as the acquisition of general skills for the scientific profession, in order to prepare the graduates for a career in various academic, medical, industrial and public scientific areas. This accompanying education is carried out in courses.

(1) COURSE TYPES.

a) **LECTURES** provide an introduction into the basic concepts and systematics as well as a presentation of the scientific background of the respective topic; furthermore they help to create interconnections and explanations of complicated circumstances.

b) **SEMINARS** are an important education method for the acquisition of knowledge at which the doctoral candidates mainly through active collaboration acquire skills how to apply the acquired knowledge for the analysis and solution of a problem. This type of education imparts the independent discussion of a theoretical problem on a scientific basis.

c) **JOURNAL CLUBS** aim at the acquisition of critical evaluation and discussion of scientific literature during regular, usually weekly, meetings, at which recent scientific articles are analyzed and discussed.

(2) **COMPULSORY COURSES:** This type includes the courses which are compulsory for all doctoral candidates.

a) **PROPEDEUTICS:** Introductory lectures and seminars to the extent of a total of 6 semester hours have to be provided, with an emphasis on natural scientific courses for medics and an emphasis on medical courses for non-medics. The general courses of the propedeutics impart the basic abilities and qualifications for the scientific profession.

b) **BASIC COURSES:** An interdisciplinary interactive cycle of courses discussing the respective program topic in its full length is to be organized to the extent of 4 semester hours.

c) **JOURNAL CLUBS** to the extent of a total of 12 semester hours are to be organized.

(3) **COMPULSORY OPTIONAL COURSES:** Within the scope of the compulsory optional part of the courses, doctoral candidates are required to attend thesis seminars to the extent of 8 semester hours.

a) **THESIS SEMINARS** are courses dealing with specific aspects of the program topic and specific methodology.

The doctoral candidates as well as the supervisors are expected to participate in the seminars and journal clubs on a regular basis.

(4) STUDY PERIODS ABROAD: Doctoral candidates willing to spend part of their studies at another appropriate national or international training institution have - according to the corresponding regulations of the Universities Organization Act 2002 and the articles of the Medical University of Vienna - the right to have the equality of intended foreign study periods confirmed in advance by the curriculum director in an official letter.

(5) ECTS-CREDITS: In terms of the European system for the accreditation of achieved study results (European Credit Transfer System, ECTS) the proportion of the study effort for the courses as mentioned under (2) is determined with 1 ECTS credits per semester hour, the courses mentioned under (3) with 1,5 ECTS credits per semester hour. Thus the propedeutics are rated with 6, the basic courses with 4, the thesis seminars and journal clubs with 12 ECTS credits each, resulting in a total of 34 ECTS credits. The composition of the thesis topic makes up for the main part of the study effort and is rated with 146 ECTS credits assuming full time pre-occupation with the thesis.

(6) PROPOSAL FOR A SEMESTER SCHEDULE

COURSE	Semester hours	ECTS Credits
1. Semester:		
Propedeutics	4	4
Basic Course	2	2
Journal Club	2	2
2. Semester:		
Propedeutics	2	2
Basic Course	2	2
Journal Club	2	2
3. Semester:		
Journal Club	2	2
Thesis Course	2	3
4. Semester:		
Journal Club	2	2
Thesis Course	2	3
5. Semester:		
Journal Club	2	2
Thesis Course	2	3
6. Semester:		
Journal Club	2	2
Thesis Course	2	3
Doctoral Thesis		146
Sum	30	180

Doctoral Thesis

§7.

(1) The doctoral thesis, composed in writing and defended in public, provides the final evidence that the doctoral candidate has acquired knowledge and skills to achieve scientific work independently and competently. The doctoral candidate produces evidence with her/his thesis of her/his capability of solving an essential scientific problem successfully and increasingly independently as well as of her/his understanding of integrating new results into the frame of the current state of knowledge.

(2) The topic of the doctoral thesis shall be extracted from one of the thematic programs (§5), or shall have a meaningful relation with one of them. If a topic is composed in teamwork, the intellectual and experimental contribution of the doctoral candidate must be clearly evident for individual evaluation.

(3) The doctoral candidate is entitled to apply for a topic from the suggestions of the available supervisors. In collaboration with the supervisor, the doctoral candidate has to compose a thesis plan, which she/he has to defend in front of the thesis committee and afterwards present it together with the expert opinion of the committee to the curriculum director for her/his approval. The doctoral thesis has to be integrated into a research project approved by a strict expert opinion. If the supervisor does not dispose of such a research project, a project application according to FWF regulations can be submitted to the curriculum director who then has an investigation procedure carried out with regard to scientific quality, priority and the available resources.

(4) The available project funds or other resources must be sufficient to enable the realization of the thesis with regard to material costs as well as to guarantee an adequate employment and remuneration of the doctoral candidate according to FWF regulations.

(5) The regulations of the copyright law have to be observed for the composition of the topic and the supervision of the doctoral candidates.

(6) All members of the staff of the Medical University of Vienna (§ 94 Abs.1 UG 2002) with a teaching qualification (*venia docendi*) or with an equivalent qualification are entitled to supervise and evaluate a doctoral thesis within the scope of a doctoral program in the field of their teaching qualification provided that the required qualification criteria defined under §5 (5) are fulfilled.

(7) The curriculum director is entitled to assign persons with a teaching qualification at an internationally accepted foreign university or any other domestic or foreign institution equal to a university for the supervision and evaluation of doctoral theses provided that the teaching qualification is equivalent with the teaching qualification pursuant to art. 6 par. 7, provided that the qualification criteria defined under §5 (5) are fulfilled.

(8) The curriculum director is entitled to assign persons without a teaching qualification (*venia docendi*) who fulfill the required qualification criteria defined under §5 (5) for the supervision and evaluation of doctoral theses. Postdocs who can be assumed to fulfill the required qualification criteria defined under §5 (5) with regard to their previous achievements can be assigned as junior supervisors for the supervision of a thesis. However, they shall be supported by experienced supervisors.

(9) The curriculum director shall establish a thesis committee for one or more doctoral candidates at the beginning of their doctoral studies. This committee shall consist of the supervisor and at least two more members whereas one of these members must not belong to the organizational unit, which the thesis topic is assigned to. The members of the thesis committee have to be disclosed to the doctoral candidates immediately after the acceptance of the topic. The thesis committee shall watch on the progress of the thesis in regular intervals, at least once a year, and if necessary give an expert opinion or serve as intermediates between the doctoral candidate and supervisor in case of problems.

(10) The thesis completed in accordance with the thesis plan is to be submitted to the curriculum director. The curriculum director immediately has to entrust two experts with the examination and evaluation of the thesis (one expert being member of the thesis committee and one expert being an external expert). They have to render their expert opinion within four months as of submittal the longest. The supervisor of the thesis cannot take on the function of an expert. If the thesis is not examined and evaluated in due time, the curriculum director has to assign one or two different experts for their opinion and evaluation of the thesis upon request of the doctoral candidate.

(11) The doctoral candidate has to produce evidence that at least one paper with her/him as first author in any internationally renowned "Peer-Review" Journal has been published or accepted for printing at the time the expert opinion is rendered. If this is not the case the doctoral candidate has to specifically explain the circumstances to the curriculum director.

(12) Within the scope of the doctoral thesis the doctoral candidate shall deal with international scholarly literature, select and apply methodology adequate for the scientific problem supported by the supervisor as well as document the progression on the doctoral thesis and the results in a suitable manner (project book). The thesis has to be composed in English whereas the abstract must be composed in English and German. The composition of the thesis must correspond to scientific work according to the „Vancouver-Guidelines“.

Examination Regulations

§8. Examinations are organized methodically guaranteeing comprehensibility, objectivity and validity.

(1) The courses within the propedeutics and the basic courses have to be completed by a course examination.

(2) The journal clubs and the thesis seminars are courses with immanent examination character. The evaluation of the doctoral candidates consists not only of one examination at the end of the course but of continuous written and/or oral contributions by the doctoral candidates, as well as of continuous monitoring and controlling of the compulsory attendance. Well-founded absences are tolerated within the limits of a tolerable time-frame (standard value 15 % of the total course duration).

(3) For the evaluation of examinations § 73 (1) UG 2002 shall be applied.

(4) The thesis plan (art. 3 par. 7) composed jointly with the supervisor is to be defended in front of the thesis committee.

(5) Requirements for the admission to the doctoral viva are the successful attendance of all courses, the defense of the thesis plan, the progress reports in front of the thesis committee and the positive evaluation of the thesis.

(6) In the doctoral viva the doctoral candidate's comprehensive faculty knowledge is examined by an examination board consisting of a chairperson and two examiners. The examiners are assigned by the curriculum director due to their professional relation to the thesis topic; however they shall not have a publicatory relation with the candidate apart from the supervisor. The supervisor of the doctoral thesis is appointed as one of the examiners unless any severe reasons speak against it. Within the scope of the doctoral viva it shall be evaluated if the doctoral candidate possesses the ability to apply the acquired knowledge in the field of the respective program topic.

(7) The doctoral viva comprises topics

1. of the doctoral thesis including current knowledge relevant for the respective scientific problem as well as
2. of the specialist area of the thesis topic.

(8) The doctoral viva is held within the frame of a public lecture (defense, „Defensio dissertationis“) followed by a scientific discussion in which primarily the examination board asks questions but the auditorium may also participate. The examination board has to evaluate the scientific methods of the thesis as well as the specialized knowledge of the doctoral candidate. In well-founded cases (patent process) the curriculum director is at the request of the doctoral candidate or the supervisor entitled to restrict the auditory to a small-qualified number.

(9) By request of the doctoral candidate the doctoral viva can be held either in German or in English.

(10) The PhD Program has been completed successfully if

1. all courses
2. the doctoral thesis and
3. the doctoral viva about the thesis topic

have been completed successfully. All are essential components for evaluation. A negative evaluation in one of them cannot be compensated by achievements in the other.

Transitional Regulations of the Doctoral Programs at the Medical University of Vienna

§9

(1) Courses (propedeutics, basic lectures, basis seminars, basis courses, thesis seminars and journal clubs) passed within a doctoral program at the Medical University of Vienna are mutually fully accredited.