



PhD PROGRAM

Curriculum

Medical University of Graz

Version 10

History of Decisions and Revisions

| Version | Date of decision ¹ | Date of approval ² | Summary of revisions / date | Effective date |
|---------|-------------------------------|-------------------------------|---|----------------|
| 01 | 7.12.2005 | 11.1.2006 | Establishment of the degree program | 1.5.2006 |
| 02 | 14.3.2006 | 15.3.2006 | Adaptation to the University Act amendment | 1.5.2006 |
| 03 | 16.5.2007 | 23.5.2007 | Expansion of § 4 | 6.6.2007 |
| | 5.3.2008 | 12.3.2008 | Editorial changes (dissertation committee) | 12.3.2008 |
| | 4.3.2009 | 25.3.2009 | New paragraph 5 in § 6 | 1.10.2009 |
| 04 | 8.6.2011 | 22.6.2011 | Streamlining of § 4, specification of courses, omission of ECTS points for the curricular part, editorial changes | 1.10.2011 |
| 05 | 13.6.2012 | 27.6.2012 | New: §5 Joint PhD | 1.10.2012 |

¹ A decision of the Academic Board for Doctoral Programs

² Approval of the Senate
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|----|-----------|-----------|--|-----------|
| 06 | 4.6.2014 | 25.6.2014 | External reviewers of the dissertation, examination regulations | 1.10.2014 |
| 07 | 10.6.2015 | 24.6.2015 | Establishment of thematic programs, joint PhD, courses, dissertation | 1.10.2015 |
| 08 | 1.6.2016 | 22.6.2016 | Editorial changes | 1.10.2016 |
| 09 | 6.6.2018 | 20.6.2018 | Editorial changes | 1.10.2018 |
| 10 | 5.6.2019 | 26.6.2019 | Editorial changes | 1.10.2019 |

Goals

§ 1. Goal and purpose of the PhD program

The PhD program serves to equip students with the skills for conducting independent research so that they may contribute to the advancement of the medical sciences. It aims to bring about future generations of research scientists in the fields of medical and life sciences. Details of the educational goals and the qualification profile can be found in Appendix I.

PhD training, as the third cycle in the Bologna process, integrates education and productive research activity. Students are regarded as being researchers at the beginning of their careers within the scope of the “European Charter for Researchers”³.

Admission requirements

§ 2. Admission to the PhD program

(1) Required for admission to the PhD program is either the completion of a degree program in Medicine or Dental Medicine, or of a life science or engineer diploma/Master program relevant to the dissertation topic.

(2) As outlined in paragraph 1, admission may also be granted if an equivalent degree program had been completed at a recognized Austrian or foreign tertiary educational institution. The equivalence shall be determined by the Vice Rector for Studies and Teaching during the admission process.

(3) Persons who meet the admission requirements according to § 2 (1) or (2) are eligible to apply for one of the advertised dissertation topics within the framework of the thematic programs (§ 4). The Dean of Doctoral Studies shall award the topic to the applicant based on the recommendation made by the faculty of the respective PhD program.

Duration

§ 3. Duration

The PhD program is a full-time program, which is completed over a period of six semesters.

Thematic programs

§ 4. Thematic programs

(1) The PhD program is structured in interdisciplinary thematic programs.

(2) Scope and name of thematic programs
Thematic programs focus on with clearly defined, but not too narrow, subject areas that are in line with a key research area of the Medical University of Graz.

(3) Members of a thematic program (faculty)
Members of a thematic program (faculty) are qualified university teachers (with a *venia legendi* certification), who are scientifically active within the respective field, and who act as supervisors for PhD dissertations. The Dean of Doctoral Studies appoints the members of a program based on the recommendation of the spokesperson of the program. University teachers from other universities may also become members of a program. If the above criteria are no longer met, membership expires after three years.

³ OJ L 75/67 of March 22, 2005, Commission Recommendation of March 11t, 2005 on the European Charter for Researchers and a Code of Conduct for the Recruitment of Researchers (2005/251/EC).

In the following, 'program' shall also be understood to include the faculty of a program.

(4) Spokesperson of a thematic program

The members of a program elect a spokesperson and a deputy spokesperson. The spokesperson is responsible for the internal coordination of the program, and represents the program to the university and the public.

(5) Each program is responsible for providing high-quality training courses in accordance with this curriculum. This includes in particular the design of course content.

(6) Establishment of thematic programs

A proponent committee lodges a proposal for a thematic program with the Dean of Doctoral Studies. The Dean of Doctoral Studies invites international experts to evaluate the proposal. The proposal must comply with the directive „Richtlinie über die Einrichtung bzw. Weiterführung eines PhD-Programms an der Medizinischen Universität Graz“.

Criteria for assessing the applications are:

- Scientific quality of the proposal
- Accordance with the strategy of the university
- Future potential of the program
- International and national networks
- Existing potential (faculty, resources, previous achievements)
- Critical size of the faculty
- Proof of compliance with the prerequisites for supervision and integration of PhD students in productive working groups
- Appropriate funding of the program via external grants

An evaluation board comprising the Dean of Doctoral Studies, the Dean of study affairs, the Vice Rector of Studies and Teaching, and the Speaker of the Academic Board for Doctoral Studies shall decide on the final approval of the program. In the event of a tie, the Dean of Doctoral Studies shall cast the decisive vote.

(7) Inter-university programs can also be established and existing programs can participate in, or propose, such inter-university programs. The distribution of teaching responsibilities in accordance with § 5 as well as any further aspects of the collaboration shall be settled in a cooperation agreement. The procedure is the same as set out in (6).

(8) The speakers of the programs submit annual reports to the Academic Board for Doctoral Studies and the Dean of Doctoral Studies.

Courses

§ 5. Courses

(1) During the doctoral program, the following courses are to be successfully completed:

Fundamentals for graduates in medicine and dental medicine

Graduates with a degree in Medicine or Dental Medicine must complete courses on the fundamentals of empirical work in medical research and the life sciences (total - 3 semester-hours), including an introduction to the respective field of their thematic program.

Fundamentals for graduates in science and engineering

Graduates of a degree program in science or engineering must complete courses on the fundamentals of medicine (total - 3 semester-hours), including an introduction to the respective field of their thematic program.

Fundamentals of scientific research and general skills

The students must complete elective courses (total - 4 semester-hours) in the fields of scientific theory, ethics, use of statistical methods, methods for planning, documentation, evaluation, and (meta) analysis of medical research studies and experiments, writing of scientific papers, presentation skills, university didactics, scientific English, management of scientific projects, etc.

If students have not completed a corresponding course in their preceding study program, a course on the basics of biostatistics with a scope of 2 semester-hours shall be completed as part of the doctoral degree program.⁴

Dissertation seminar

The students shall complete seminars and workshops (total - 8 semester-hours) in the field of the dissertation topic or in a sub-discipline.

Literature clubs, project presentations and guest lectures

During these seminars (total - 10 semester-hours) the scientific literature relevant to the field of the dissertations and the project reports are critically presented and discussed. The confirmation of participation in literature clubs, project presentations and guest lectures is to be forwarded to the Dean of Doctoral Studies.

Elective

A total of 4 semester-hours (marked courses *) may be completed as electives, taking into consideration the thematic context of the doctoral thesis and the scientific depth appropriate to the doctoral degree program. Electives can be chosen from a list published on Medonline at the Med Uni Graz or may be completed at any postsecondary educational institution and subject for approval by the Rector of Studies in a recognition procedure after a positive statement has been obtained from the spokesperson of the doctoral program.

Presentation of dissertation topic and work plan before the Dissertation Committee

The dissertation topic and the work plan shall be presented to the Dissertation Committee (total - 0.5 semester-hours) in the first semester. The PhD candidate and the Dissertation Committee agree on the courses to be taken in accordance with the curriculum. The spokesperson of the program will forward the presentation and a written assessment by the Dissertation Committee to the Dean of Doctoral Studies.

Interim report to the Dissertation Committee

In the third and fifth semester, written interim reports shall be prepared and presented to the Dissertation Committee (total - 0.5 semester-hours each). The spokesperson of the program will forward the interim report and a written assessment by the Dissertation Committee to the Dean of Doctoral Studies.

⁴ Effective date: October 1, 2017
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Public presentations (e.g. at the Doctoral Day)

During the course of the program, three public presentations shall be prepared and held at appropriate scientific conferences, including the Doctoral Day of the Medical University of Graz, (total - 0.5 semester-hours).

Table 1

| Suggested semester schedule | Semester-hours |
|---|-----------------------|
| Semester 1 | |
| Fundamentals for graduates in medicine and dental medicine or science and engineering | 3 |
| Literature clubs, project presentations and guest lectures* | 2 |
| Presentation of dissertation topic and work plan before the Dissertation Committee | 0.5 |
| Semester 2 | |
| Fundamentals of scientific research and general skills* | 2 |
| Dissertation seminar* | 2 |
| Literature clubs, project presentations and guest lectures* | 2 |
| Semesters 3 and 5, each | |
| Dissertation seminar* | 2 |
| Literature clubs, project presentations and guest lectures* | 2 |
| Interim report to the Dissertation Committee | 0.5 |
| Public presentations (e.g. at the Doctoral Day) | 0.5 |
| Semester 4 | |
| Dissertation seminar* | 2 |
| Fundamentals of scientific research and general skills* | 2 |
| Public presentations (e.g. at the Doctoral Day) | 0.5 |
| Semester 6 | |
| Literature clubs, project presentations and guest lectures* | 2 |
| Total | 28 |

* Courses may be completed as electives to a total extent of 4 semester-hours.

- (2) All courses will be held in English.
- (3) The courses are proposed by the thematic programs and are approved by the Dean of Doctoral Studies.
- (4) At least 50% of the courses shall be completed at the Medical University of Graz. The presentation of the dissertation project and the interim reports must be filed at the Medical University of Graz.
- (5) Successful attendance of all courses, positive evaluations of the research plan and the interim reports, and records on the public presentations are prerequisites for registering for the final oral comprehensive examination (defensio viva voce).

Dissertation

§ 6. Dissertation

(1) With the dissertation, the student provides evidence of having acquired the knowledge and ability to successfully conduct scientific research on current issues in an autonomous manner. Therefore, the dissertation must be wholly made up of independent original work that the student has produced and written up on her/his own. The latter shall be confirmed by the student in a preamble to the dissertation. The student shall further confirm that the rules of good scientific practice, as set

out by the Medical University of Graz, were observed during work for the dissertation and the related publications.

The rules and form of the doctoral thesis to be written are stated in detail in the "Guidelines for the Preparation of a Dissertation" and the "Checklist for Students and Supervisors". The submission of a cumulative dissertation is permissible in particular and justified cases, but only after consultation with the Dean of Doctoral Studies and in compliance with the "Guidelines for the Preparation of a Dissertation".

Joint work on a topic by several students shall be permissible, whereby the doctoral student's own contribution shall be clearly defined and every participating doctoral student shall write her/his own doctoral thesis.

The dissertation must be written in English. An abstract of the dissertation must be submitted in English and German.

(2) At the start of the study program, a dissertation agreement is made which governs the rights and obligations of the supervisor and the student. The dissertation agreement is to be submitted to the Dean of Doctoral Studies by the end of the first semester.

(3) During the PhD training program the student will be supported and guided by a supervisor. For interdisciplinary research projects, a second supervisor can be appointed who must have a thorough understanding of the topic of the dissertation. The supervisor's duty is to guide and support the doctoral student in her/his independent scientific work. This includes promoting independent scientific publishing activities. The responsibility of the supervisor towards the student ends upon completion of the final oral examination, and at maximum after four years. If circumstances so require, the Dean of Doctoral Studies may extend the duration of supervision at the request of the student and with the supervisor's consent.

(4) Eligible as supervisors are qualified university teachers (with *venia legendi* certification) in accordance with § 103 University Act 2002.

(5) For each dissertation, the Dean of Doctoral Studies will assign a Dissertation Committee consisting of at least three persons, which will be headed by the supervisor. One member must be from outside the institute, division (Lehrstuhl) or clinical division where the work will be performed. Two members of the committee shall have a *venia legendi*; it shall be sufficient for the other members to hold a doctoral degree. The Dissertation Committee supports and advises the student in the subject area at least once a year in a formal meeting. The PhD candidate must present her/his interim report at this meeting, and the Dissertation Committee will provide written comments on the progress of the work. An extraordinary meeting of the Dissertation Committee may be requested by the supervisor, a Dissertation Committee member, the student, or the Dean of Doctoral Studies.

(6) The completed dissertation is to be submitted to the Dean of study affairs via the Dean of Doctoral Studies who conducts a formal examination of the dissertation according to the "Guidelines for the Preparation of a Dissertation" and the "Checklist for Students and Supervisors". The Dean of study affairs will nominate two reviewers. Before the dissertation can be rendered for evaluation by the reviewers, it is required that at least one paper arising from the research has been published, or been accepted for publication, in an SCI-listed journal with the candidate as first author.

Eligible as reviewers are scientists who hold a teaching qualification (*venia legendi*) or a comparable qualification within the field of the dissertation, if they are not subject to any kind of conflict of interest, and if they are affiliated to a university other than the Medical University of Graz. The supervisor and members of the Dissertation Committee must not serve as reviewers of the dissertation.

The assessment of the dissertation must be completed by the Dean of study affairs within two months and the thesis be graded as "successfully completed" or "unsuccessfully completed".

(7) The written opinions of the reviewers and the grading of the thesis will be made accessible to the student and the Dissertation Committee.

(8) The student must publish the positively assessed dissertation before being awarded the academic degree in accordance with the regulations of § 86 University Act 2002.

Examination Regulations

§ 7. Examination Regulations

(1) The „*Fundamentals of scientific research and general skills*“, *Literature clubs, project presentations and guest lectures*“ and „*Dissertation seminar*“ are courses with continual performance assessment.

(2) The doctoral program is completed with the final public comprehensive oral examination before a committee (*defensio viva voce*).

(3) The student is entitled to register with the Dean of study affairs for the final comprehensive oral examination, if the following conditions are met:

- a) Completion of all course examinations and courses with continual performance assessment.
- b) Approval of the thesis.

(4) The final comprehensive oral examination includes the defense of the dissertation, and an examination of the field or sub-discipline, from which the dissertation had originated.

(5) The Dean of study affairs will appoint a board of three examiners to conduct the final comprehensive oral examination. One of the members shall be designated as the chairperson of the Examination Board.

Eligible as examiners are scientists who hold a teaching qualification (*venia legendi*) or a comparable qualification in the field of the dissertation, and who do not have any kind of conflict of interest. Two of the three examiners must be affiliated to a university other than the Medical University of Graz. The supervisor and members of the Dissertation Committee must not serve as examiners.

(6) The student will be informed of the composition of the Examination Board at least four weeks prior to the examination. The time and place of the final examination will be published on the website of the Medical University of Graz at least a week before the exam.

(7) The final comprehensive examination will be conducted as a public oral examination by the entire Examination Board and shall last no longer than 90 minutes. The examination language is English. The candidate is to begin with a brief presentation of the dissertation, including a defense of the results obtained in the research (*defensio dissertationis*).

(8) During the final comprehensive oral examination, the candidate must provide evidence of her/his scientific aptitude and skill, and a thorough understanding of the main scientific problems in the field examined.

(9) The chairperson of the Examination Board will ensure that the final comprehensive oral examination is conducted in an orderly manner and keep records of the examination. These records will include the name of the student, the subject(s) of the examination, the place and time thereof, the names of the Examination Board members, the questions asked, the grades given, any reasons for a negative assessment, and any unusual occurrences.

(10) The discussion and vote by the Examination Board on the result of the final comprehensive oral examination of all examination subjects shall be held in a closed session. The decisions of the Examination Board will be determined by a majority vote, whereby the chairperson, who exercises the same voting rights as the other members, shall vote last. When casting her/his vote, each member

of the Examination Board will consider the results of the individual examination subjects as well as the overall impression of the final comprehensive oral examination.

(11) If the Examination Board is unable to reach a decision on a grade, the proposed grades of the members shall be added, the sum divided by the number of members, and the result then be rounded mathematically to give a whole number for the final grade. The final comprehensive oral examination will only be deemed successfully completed if each examination subject pursuant to paragraph 4 has been awarded a grade of at least “satisfactory”. If a grade of “unsatisfactory” is given for more than one examination subject, the final comprehensive oral examination must be repeated in its entirety. Otherwise the repeat examination will be on the examination subject that has not been passed previously.

Doctoral Title and Conferral of the Doctorate

§ 8. Doctoral Title and Conferral of the Doctorate

The Dean of study affairs will officially award the graduates of the PhD program the academic title of “Doctor of Philosophy”, abbreviated “PhD”, promptly by written notification, notwithstanding the holding of academic ceremonies in celebration of the conferral of the doctorate, and no later than one month after completion of the final comprehensive oral examination.

Joint and Double-Degree Programs

§ 9. Joint and Double-Degree Programs

The PhD degree program may also be completed as part of a joint or a double degree program. In this case, the student shall spend at least one year working on her/his doctoral thesis at the respective partner university. The student shall submit an agreement regulating the joint or double degree program between the participating universities and defining the award of the university degree as a joint or double degree to the Dean of Doctoral Studies for approval. Within the agreement, all work done and exams passed at the partner university are recognized automatically.

Provisions for the Transition from the Doctoral Degree Program in Medical Science to a PhD Program

§ 10. Provisions for the Transition from the Doctoral Degree Program in Medical Science (Dr. scient. med.) to a PhD Program

Students studying according to the curriculum for the Doctoral Degree Program in Medical Science (who have not yet completed their study program) who have successfully applied for a thesis project within the PhD study program (pursuant to § 6 paragraph 2), may have the curricular workload of the Dr. scient. med. study program as well as the work on their doctoral thesis recognized, provided that the topic of the dissertation is covered by the respective PhD degree program. The procedure and rules are stated in detail in the “Guideline for the transition from the doctoral degree program in Medical Science to a PhD degree program”.

Jurisdiction and Rules of Procedure

§ 11. Jurisdiction and Rules of Procedure

(1) Appeals against decisions of the Dean of study affairs may be made to the Federal Administrative Court (Art. 130 Abs. 1 Z 1 B-VG iVm § 46 Abs. 2).

(2) The Dean of Doctoral Studies shall decide in the name of the Dean of study affairs about any study matters to the extent stipulated in the curriculum. Any requested written decision will be issued by the Dean of study affairs.

(3) The General Administrative Procedure Act 1991, Austrian Federal Law Gazette No. 51/1991 as amended, shall apply for official proceedings on the basis of this curriculum.

Effective Date of the Curriculum

§ 12. Effective Date of the Curriculum

This curriculum shall enter into effect on October 1, 2019.

Educational goals/qualification profile of the PhD program

The graduates are qualified

- to independently conduct research at an international level
- to publish the results of their research in internationally recognized journals
- to present and discuss the results of their research at international conferences
- to present the results of their research in an understandable manner to the public
- to conduct subject-related discussions with other scientists in English language

The graduates will understand and observe the ethical guidelines for research (good scientific practice).