

**Statutes of the
Doctoral School of Mechanical Engineering at the
Faculty of Mechanical Engineering and Economics of
Graz University of Technology**

As of 11/01/2019

Legal validity remains restricted to the German original

(1) Scope of the Doctoral Programme in the Doctoral School of Mechanical Engineering

The doctoral programme in the Doctoral School of Mechanical Engineering relates to scientific problems of the technical sciences in the field of mechanical engineering and closely related subject areas. The doctoral programme develops advanced abilities of the candidates, not only in the field of their subject of research, but also in related areas. The doctoral programme educates students in close relation to current research.

(2) Academic Degree

Graduates of the Doctoral School of Mechanical Engineering are awarded the degree of a “Doctor of Engineering Sciences”, in Latin “Doctor technicae”, abbreviated “Dr. techn”.

(3) Objectives and Subject-Specific Qualification Profile

Objectives of the doctoral programme are to develop skills for independent scientific research, advanced knowledge, as well as abilities of the students for presentation and defence of results in the related field of research of the engineering sciences and related areas.

Graduates of the Doctoral Programme in Mechanical Engineering have in-depth knowledge of the area of their PhD thesis, extensive experience with the application of scientific methods in the engineering sciences, skills in presenting and defending results, and the ability for team work.

(4) List of Member Institutes at Graz University of Technology

The Doctoral School of Mechanical Engineering includes the following institutes:

3010 Production Engineering
3030 Materials Science, Joining and Forming
3040 Strength of Materials
3050 Mechanics
3070 Thermal Engineering
3090 Logistics Engineering
3100 Machine Components and Methods of Development
3130 Internal Combustion Engines and Thermodynamics
3170 Hydraulic Fluidmachinery
3190 Thermal Turbomachinery and Machine Dynamics
3210 Fluid Mechanics and Heat Transfer
3310 Automotive Engineering
3330 Vehicle Safety Institute

(5) Inter-University Cooperation

Not applicable to this doctoral school.

(6) Structure and Tasks of the Coordination Team

The Coordination Team of the Doctoral School of Mechanical Engineering is structured as follows: (Professors:Mid-level faculty members:Doctoral students) as (2:2:2). The team appoints a chairperson from among its members.

The tasks of the Coordination Team are defined by § 3(4) of the doctoral curriculum. Among others, the tasks of the team are the scheduling and organisation of the doctoral seminar. In addition, the Doctoral School of Mechanical Engineering recommends a trial presentation prior to the thesis defence. The date is to be announced beforehand – even at short notice – to the Doctoral School of Mechanical Engineering and the allocated doctoral candidates. The dates and times for the thesis defences must be communicated to all the doctoral candidates of the Doctoral School of Mechanical Engineering and all its allocated institutes.

(7) Guidelines for the Supervision of Doctoral Candidates at the Doctoral School of Mechanical Engineering

As a rule, supervisors of doctoral students are habilitated lecturers of the institute to which the doctoral student is allocated. An exchange at regular intervals between the doctoral candidate and his/her supervisor based on progress reports provided by the doctoral student shall be agreed upon in a written form at the beginning of the cooperation and adhered to throughout. A copy of the written schedule must be presented to the head of the doctoral school.

The doctoral supervisor is expected to support and challenge the doctoral students. The support consists, for instance, in targeted, timely feedback on results presented, in the mediation of subject-specific contacts inside and outside the university, and in opportunities for representing interim and final results. Should a doctoral candidate fail to present progress reports and results for a prolonged period of time, the supervisor requires the reports and points out the consequences of slow progress.

(8) Guidelines for the Assessment of the PhD Thesis

In accordance with the regulations of the doctoral curriculum, the assessors of a PhD thesis completed at this doctoral school must not be all employed at the same institute. It is recommended to involve a competent colleague from a different university as the second assessor. The doctoral school provides a template for the thesis assessment.

(9) Publication Guidelines at the Doctoral School of Mechanical Engineering

The Doctoral School of Mechanical Engineering requires doctoral candidates to publish approximately two articles in international journals or at international conferences prior to completing their doctoral studies. Articles must be submitted, accepted for publication or published.

(10) Instructional classes in the Doctoral Programme

The doctoral programme offered by the Doctoral School of Mechanical Engineering includes 14 semester course hours (SWS) of instructional classes in three modules. The modules are structured as follows: “Subject-specific basic courses”, as outlined in section (11) below: 8 semester course hours; courses in the field of “Scientific Methods and Communication”, as outlined in section (12) below: 4 semester course hours, 2 of which must be the doctoral seminar; and an exclusive tutorial, as outlined in section (13) below: 2 semester course hours.

(11) Subject-Specific Basic Courses

Subject-specific basic courses are selected by the doctoral candidate in close consultation with his/her supervisor from the portfolio offered by Graz University of Technology. The instructional classes portfolio is subject to approval by the Dean of Studies. The selected subjects must correspond as closely as possible to the scope of the specific doctoral research project. The goal is to provide the doctoral candidates with the best possible level of qualification.

The doctoral school recommends courses from § 5a of the master’s curriculum in Mechanical Engineering. Courses completed in the graduation of a doctoral candidate (e.g., master’s programme) are not eligible as subject-specific basic courses.

In the interest of a broad basic education at a high level, students are strongly discouraged from choosing courses at the supervisor’s institute only.

(12) Courses in the field of “Scientific Methods and Communication”

The instructional classes in the field of “Scientific Methods and Communication” aim to provide the theoretical knowledge and practical skills for developing results in research with scientific methods, and to present and defend these results, as in the following courses.

Examples of courses in the field of Scientific Methods and Communication

- 371.303, Teambuilding
- 372.214, Project Management
- 930.001, Fundamental and Applied Research: Third-Party Funding, Grant Proposals, Collaboration, Resources and Impact
- 940.965, Intercultural Social Competence for Work and Life
- 940.930, Finding Scientific Literature and Publishing your Texts
- 940.942, Gesprächsverhalten, Diskussionstechnik und Rhetorik (in German)
- TUG In-house Training, Effective Scientific Writing in English
- TUG In-house Training, Leading Diverse Teams
- TUG In-house Training, Managing Cross-Cultural Conflict

Upon written application, the Dean of Studies may accept other courses, subject to their content.

The doctoral seminar (2 semester course hours) is another element of the classes of this doctoral programme. In the seminar, progress and results of the doctoral projects at the Doctoral School of Mechanical Engineering are presented. The seminar is held in four four-hour blocks each semester. In these sessions, doctoral candidates in their second year present their work. All doctoral candidates in the first year of their studies briefly introduce themselves and their work.

(13) Exclusive Tutorial

This is an opportunity for one-to-one engagement with the student's work offered by the supervisor and entails the study and discussion of presented concepts, preliminary results, formulations etc. and a concrete feedback from the supervisor.

(14) Composition of the Board of Examiners for the Thesis Defence

As a rule, the board of examiners for the thesis defence consists of the Dean of Studies for Mechanical Engineering (chairperson), the supervisor and primary assessor of the PhD thesis, and an additional, habilitated university lecturer who may, but does not have to, be the second assessor of the PhD thesis.

(15) Thesis Defence

As a rule, in the thesis defence the doctoral candidate presents his/her research work completed and the content of his/her PhD thesis, e.g. the scientific problem formulation, the selected research methodology, the areas of emphasis and the main results. Furthermore, in the examination, questions on the PhD thesis and its presentation, as well as closely related subject areas, are discussed. The thesis defence is open to the public. In the thesis defence, only members of the examination board are authorised to ask questions.

(16) Confidentiality Agreements

In many cases of applied research, the doctoral research project is financed in cooperation with industrial partners who usually require confidentiality of the results achieved in the project and documented in the PhD thesis. In such cases, access to the PhD thesis may be restricted by mutual agreement between the doctoral candidate, his/her supervisor and the industrial company in question, ensuring confidentiality for a period of time. Despite this agreement, in accord-

ance with section (9), all partners should have the interest to publish the results of the PhD thesis to an acceptable extent. Any confidentiality agreement should regulate the doctoral candidate's right to present results at conferences and at the doctoral seminar. Restricting the access to a PhD thesis is subject to the approval by the Dean of Studies. In cases where the Dean of Studies declines, the Coordination Team must be consulted.

The Coordination Team