



Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich

Department of Mechanical and Process Engineering (D-MAVT)

Detailed stipulations regarding the Doctorate of 23 November 2021

This English translation serves information purposes only and has no legal force. The original German version is the legally binding document.

The ETH Zurich Executive Board,

at the request of the Department of Mechanical and Process Engineering at ETH Zurich¹, and pursuant to Art. 52 of the ETH Zurich Ordinance on the Doctorate of 23 November 2021²,
hereby decrees the following detailed stipulations regarding the doctorate:

Section 1 – General provisions

Art. 1 Scope and purpose

These detailed stipulations set out the department-specific provisions governing the doctorate at the Department of Mechanical and Process Engineering (D-MAVT) of ETH Zurich. They are based on the ETH Zurich Ordinance on the Doctorate (DO) of 23 November 2021³ and the Rector's Implementation Provisions (IP) of 23 November 2021⁴ for the ETH Zurich Ordinance on the Doctorate. Further details and forms are published on the D-MAVT website.

The measures described below are intended to contribute to the quality assurance of doctoral theses at D-MAVT. The doctoral students and their supervision as well as the project topic are decisive for the quality of the doctoral theses.

Art. 2 Doctoral committee (DO Art. 4)

The doctoral committee is composed of at least seven D-MAVT professors, which reflect the diverse expertise in the department. Members of the doctoral committee are elected by the Department Conference for a two-year term. Re-election is possible twice. The Deputy Head of Department is the head of the doctoral committee (Delegate for Doctoral Affairs).

¹ Resolution of the D-MAVT Department Conference of 6 October 2021 (approval of the detailed stipulations).

² SR 414.133.1

³ SR 414.133.1

⁴ RSETHZ 340.311

The D-MAVT Doctoral Administration informs the Rector about the composition of the doctoral committee.

Art 3. Accredited professors and titular professors (DO Art. 5)

Accredited professors and titular professors elected at D-MAVT may act as supervisors for doctoral theses.

Section 2 - Admission, doctoral plan, and aptitude colloquium

Art. 4 Selection committee (DO Art. 9)

The Doctoral Committee of D-MAVT serves as the selection committee for new doctoral students at D-MAVT. The Department Conference defines selection criteria. These are enforced by the Doctoral Committee, which decides about the admission or rejection of new doctoral students after consultation with the doctoral thesis supervisor.

In the case of a positive decision about a doctoral student's admission, the Doctoral Committee decides on the requirements of the extended doctoral studies, based on the above criteria.

Art. 5 Doctoral programs (IP item 2.3)

Doctoral students of D-MAVT may be enrolled in Doctoral Programs of ETH Zurich.

Doctoral students who are admitted to a Doctoral Program are automatically admitted to D-MAVT. In such cases, the D-MAVT Doctoral Committee only decides about the requirements for the extended doctoral studies.

Art. 6 Doctoral plan (DO Art. 11; IP item 3)

The doctoral plan must be submitted to the Doctoral Administration of D-MAVT at least three weeks before the aptitude colloquium, according to the Doctoral Ordinance and the Rector's Implementation Provisions, along with the form about the Aptitude colloquium.

Art. 7 Aptitude colloquium (DO Art. 12, 14, 15)

The aptitude colloquium shall take place at the latest in the twelfth month after provisional admission of the doctoral student.

The aptitude colloquium is not public and shall last 45-60 minutes. Guests may be admitted if the student and the supervisor agree. The colloquium consists of a presentation of not more than 20 minutes, followed by a discussion with the committee members.

Art. 8 Aptitude committee (DO Art. 13, 16; IP item 4.1)

The Doctoral Committee appoints a D-MAVT professor as chair of the aptitude committee is.

If the second advisor of the doctoral student is from the same professorship as the supervisor, another independent professor (not from the same professorship) must be included in the aptitude committee.

The Doctoral Committee decides, upon request by the doctoral thesis supervisor, about additional members of the aptitude committee.

All committee members as well as the doctoral student may join the aptitude colloquium virtually. The organizer of the colloquium and the participants are responsible for the functionality of the two-way communication – both video and audio.

Section 3 - Supervision of the doctoral thesis and mentoring of the doctoral students

Art. 9 Second advisor (DO Art. 28; IP item 8)

The second advisor must have a doctoral degree and, preferably, be a permanently appointed scientist. The Academic Services must be notified of the second advisor before the aptitude colloquium.

Art. 10 Progress report and status conversation (DO Art. 29; IP item 9)

The Department provides the doctoral student with a template for the progress report and status conversation.

The status conversation consists of two separate parts:

1. Academic progress
2. Assessment, career, and personal development

The doctoral students write a progress report as the basis for the first part of the status conversation (academic progress). They have to hand in the progress report to the participants no later than two weeks before the first part of the status conversation.

The results of the status conversation are recorded in writing according to the template. The supervisor comments on the funding of the doctorate. A copy of the results of the first part of the status conversation is submitted to the D-AMVT Doctoral Administration for their files. In the case of critical points without agreement, the supervisor and the doctoral student may involve a contact point defined by the department; the Delegate of Doctoral Affairs may also call a joint meeting.

The second part of the status conversation (assessment, career, and personal development) and its written records stays confidential between the supervisor and the doctoral student.

Section 4 - Individual Doctoral Studies

Art. 11 Regular doctoral studies (DO Art. 36, 38; IP item 10)

The objective of the regular doctoral studies is to deepen knowledge in the research area of the doctoral thesis and to expand knowledge outside the traditional discipline. No more than 2 credits (ECTS) may be acquired through integration into the scientific community (e.g., conferences, workshop participation, poster, or presentation, etc.).

For the participation in boards, committees, and university groups a maximum of one credit point (ECTS) may be acquired.

The performances recognized in the doctoral studies are stipulated in the Rector's Implementation Provisions for the ETH Zurich Ordinance on the Doctorate.

Art. 12 Extended doctoral studies (DO Art. 37)

Extended doctoral studies are (among others) for doctoral students who would like to further deepen their knowledge in their research area. The criteria defined by the Department Conference are the basis for the decision by the Doctoral Committee.

Extended doctoral studies require the acquisition of at least 12 credits (ECTS) beyond the credits required for the regular doctoral studies. It is recommended that these credits are acquired during the first year of the doctoral studies (prior to the definitive admission).

The credits for extended doctoral studies must meet the following criteria:

- courses at ETH Zurich with exams, of which at least two written exams, as stipulated in the Course Catalogue of ETH Zurich;
- all courses are offered at the Master's level and
- no more than one exam may be given by the student's supervisor or the supervisor's team.

The supervisor of the doctoral thesis and the doctoral student agree on the study achievements to be completed, set out in a personal curriculum. These achievements are then submitted to the D-MAVT Doctoral Administration. Any disagreements are settled by the doctoral committee.

The personal curriculum and the timeline of the extended doctoral studies as well as the exam results are components of the Doctoral Plan.

Section 5 - Doctoral examination

Art. 13 Doctoral examination (DO Art. 39)

A doctoral examination at D-MAVT consists of a public presentation with a discussion, followed by the oral examination. The presentation shall not be longer than 40 minutes. The oral examination shall last at least 60 minutes but not longer than 90 minutes. The oral examination is not public. If the doctoral student and the supervisor agree, a maximum of ten

guests may be present during the exam. All committee members as well as the doctoral candidate may participate virtually. Audio or video recordings are prohibited.

The language of the presentation and doctoral examination is English or German.

Section 6 - Final clauses

Art. 14 Transitional provisions for the doctoral examination

Doctoral examinations that were registered before 1 January 2022 will adhere to the rules that applied at the time of scheduling the exam:

- a. the doctoral examination is public and lasts 90 minutes at most including a presentation of 30-40 minutes;
- b. the doctoral examination committee should not include non-ETH members;
- c. the reports should be sent at least three weeks before the doctoral examination.

Art. 15 Transitional provisions for regular doctoral studies

Doctoral students who complete their individual doctoral studies under the previous regulations in accordance with DV Art. 65, follow the provisions set out in Annex 1.

Article 16 Entry into force

These detailed stipulations enter into force on 1 January 2022. They replace the detailed stipulations regarding the doctorate at D-MAVT of 17 December 2013.

Application of the salary rates

The salary rates for doctoral students are applied in accordance with Art. 8 Para. 3 of the Ordinance governing scientific employees of ETH Zurich⁵, in conjunction with item 1 Para. 3 of the Directives for doctoral students employed at ETH Zurich⁶.

The department applies fair and transparent salary rates to its doctoral students. For this purpose, each professorship defines a uniform salary rate for all its doctoral students (at least level 2 is recommended). If a doctoral student performs essential additional functions (e.g., in teaching, administration, or supervision of equipment, etc.), then this should be rewarded by a higher salary rate.

⁵ SR 172.220.113.11

⁶ RSETHZ 622

Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich

Department of Mechanical and Process Engineering (D-MAVT)

Detailed stipulations regarding the individual doctoral studies of 17 December 2013 (as of 17 February 2014)

Approved by the Executive Board on 11 March 2014

This English translation serves information purposes only and has no legal force. The original German version is the legally binding document.

Based on Art. 23, Para. 3 of the ETH Zurich Ordinance on the Doctorate of 1 July 2008¹ in connection with the Rector's Implementation Provisions of 17 October 2013²,

D-MAVT enacts the following detailed stipulations³ on the individual doctoral studies:

1 Scope (Art. 3 Ordinance on the Doctorate)

The D-MAVT doctoral studies take place within the framework of an individually compiled program.

2 Credits recognition (Art 25.a Ordinance on the Doctorate)

The doctoral students must earn at least 12 credits during their doctoral studies. One credit is a workload of 25 to 30 hours. At least one third of the credits must be earned outside their research area.

2.1 Credits in ETH Course Catalogue

D-MAVT stipulates the recognition of credits as follows:

Course with an examination: The number of credits (ECTS) corresponds with the number that is indicated in the course catalogue. The examination requirements, registration and de-registration, and the grading follow the guidelines of the Rectorate for students. The grades are entered by the lecturers in *eDoz* and forwarded to the Student Administration. The ECTS are then visible for the doctoral students in the performance overview of *myStudies*.

Individual achievement without an examination: ETH Zurich lecturers may stipulate particular activities (participation in tests, independent work, tasks, etc.) to be carried out by D-MAVT doctoral students in order to acquire credit points without an official examination. The lecturers will detail the

¹ SR 414.133.1

² RSETHZ 340.311

³ These detailed stipulations have been discussed and passed in the following committees: Teaching Committee (29.11.2013), Professors' Conference (11.12.2013) and Department Conference (17.12.2013).

conditions for these individual achievements (form, type, and time plan) on request by the doctoral students. The doctoral students have to enrol in the course. The lecturers confirm the completion of the individual achievement in section “Admission to exams” of *eDoz*. The confirmation appears in the study overview of *myStudies*.

The maximal number of credits for the individual achievements is defined in the in the course catalogue (V+U, G) under “hours”.

2.2 Teacher Training

Credits achieved in the Teaching Training may be recognised as credits in individual doctoral studies upon approval of the thesis supervisor.

2.3 Credit points for courses and activities outside of ETH Zurich

The thesis supervisor decides on the attribution of credit points for courses and activities attended outside of ETH Zurich. An input of 25 to 30 working hours is required for each credit point. For these activities, the original proof of academic achievement and the approval of the thesis supervisor have to be included on the course attendance confirmation sheet.

External credits are not included in *myStudies*.

2.4 Active participation in academic committees and working groups

Active participation in academic committees and working groups at ETH Zurich are not recognized as credits.

3. Confirmation of credits (Art. 9 of the Implementation Provisions)

On behalf of the department, the student administration confirms the achievement of the required credits. These credits are visible in the Transcript of Records of ETH Zurich, in the overview of studies (*myStudies*) or in the Confirmation of Attendance for doctoral students, in which external activities are recognized by the thesis supervisor.

The doctoral students must have their study achievements and the form “Registration for Doctoral Exam” confirmed by the student administration and submitted to the Rectorate at least 3 weeks before the doctoral exam.

4. Exemption

The Doctoral Committee decides about exemption to the present stipulations.

5 Entry into force

The detailed stipulations enter into force on 17 February 2014.