

**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**

¹ 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 of 23 November 2021³ and the Rector's Implementation Provisions for the ETH Zurich Ordinance on the Doctorate of 23 November 2021⁴. Further details and forms are published on the D-MAVT website.

² The measures described below are intended to contribute to the quality assurance of doctoral theses at D-MAVT. Doctoral students, their supervision and the project topic are decisive for the quality of doctoral theses.

Art. 2 Doctoral committee

¹ The doctoral committee is composed of at least seven D-MAVT professors, who reflect the wide expertise of the department.

² Members of the doctoral committee are elected by the Department Conference for a two-year term. Re-election is possible twice.

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

³ The Deputy Head of Department is the chairperson of the doctoral committee (Delegate for Doctoral Affairs).

⁴ The D-MAVT Doctoral Administration informs the Rector on the composition of the doctoral committee.

Art. 3 Accredited professors and adjunct professors

Accredited D-MAVT professors and adjunct D-MAVT professors may act as doctoral thesis supervisors.

Section 2: Admission, doctoral plan, and aptitude colloquium

Art. 4 Selection committee

¹ The D-MAVT doctoral committee serves as the selection committee for new doctoral students at D-MAVT. The Department Conference defines the selection criteria. These are applied by the doctoral committee, which decides on the admission or rejection of new doctoral students after consultation with the doctoral thesis supervisor.

² If a doctoral student is admitted, the doctoral committee determines the requirements for extended doctoral studies based on the above criteria.

Art. 5 Doctoral programmes

¹ D-MAVT doctoral students may participate in ETH Zurich doctoral programmes.

² Doctoral students who are admitted to a doctoral programme are automatically admitted to D-MAVT. In such cases, the D-MAVT doctoral committee only decides on the requirements for extended doctoral studies.

Art. 6 Doctoral plan

As stipulated in the ETH Zurich Ordinance on the Doctorate and the Rector's Implementation Provisions for the ETH Zurich Ordinance on the Doctorate, the doctoral plan must be submitted to the D-MAVT Doctoral Administration at least three weeks before the aptitude colloquium along with the aptitude colloquium form.

Art. 7 Aptitude colloquium

¹ The aptitude colloquium must take place at the latest in the twelfth month after provisional admission of the doctoral student at the latest.

² The aptitude colloquium is not public and lasts 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

¹ The doctoral committee appoints a D-MAVT professor as chair of the aptitude committee.

² 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.

³ At the request of the doctoral thesis supervisor the doctoral committee decides on additional members of the aptitude committee.

⁴ All committee members, and the doctoral student, may attend the aptitude colloquium virtually. The organiser of the colloquium and the participants are responsible for the functioning of two-way video and audio communication.

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

Art. 9 Second advisor

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

Art. 10 Progress report and status conversation

¹ The department provides the doctoral student with a template for the progress report and status conversation.

² The status conversation consists of two separate parts:

- a. Academic progress
- b. Assessment, career and personal development

³ Doctoral students write a progress report as the basis for the first part of the status conversation (academic progress). They must submit the progress report to conversation participants no later than two weeks before the first part of the status conversation.

⁴ The results of the status conversation are recorded in writing as per 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-MAVT Doctoral Administration for their files. If there is any lack of agreement on critical points the supervisor and the doctoral student may involve a contact point defined by the department; the Delegate for Doctoral Affairs may also call a joint meeting.

⁵ The second part of the status conversation (assessment, career and personal development) and its written record are confidential and remain between the supervisor and the doctoral student.

Section 4: Regular doctoral studies

Art. 11 Regular doctoral studies

¹ The objective of regular doctoral studies is to deepen knowledge in the research area of the doctoral thesis and to expand knowledge outside the traditional discipline.

² No more than 2 ECTS credits may be acquired through integration into the scientific community (e.g. via conferences, workshops, posters or papers).

³ A maximum of 1 credit may be acquired through participation in boards, committees and university groups.

⁴ The study achievements recognised towards doctoral studies are detailed in the Rector's Implementation Provisions for the ETH Zurich Ordinance on the Doctorate.

Art. 12 Extended doctoral studies

¹ Extended doctoral studies are (among other things) intended for doctoral students who wish to deepen their knowledge in the research area. The doctoral committee bases its decision on the criteria defined by the Department Conference.

² Extended doctoral studies require the acquisition of at least 12 credits in addition to the credits required for regular doctoral studies. It is recommended that these credits be acquired during the first year of doctoral studies (prior to definitive admission).

³ The credits for extended doctoral studies must meet the following criteria:

- a. They are earned in ETH Zurich course units at Master's degree level which involve examinations, at least two of which are written (details as per the ETH Zurich Course Catalogue).
- b. No more than one examination may be administered by the doctoral thesis supervisor or the supervisor's team.

⁴ The doctoral thesis supervisor and the doctoral student agree on the study achievements to be completed, list these in a personal curriculum and submit them to the D-MAVT Doctoral Administration. Any disagreements are settled by the doctoral committee.

⁵ The personal curriculum, the timeline for extended doctoral studies and any examination results are components of the doctoral plan.

Section 5: Doctoral examination

Art. 13 Doctoral examination

¹ A doctoral examination at D-MAVT consists of a public presentation with a discussion, followed by an oral examination.

² The presentation lasts no longer than 40 minutes. The oral examination lasts at least 60 minutes but no longer than 90 minutes.

³ The oral examination is not public. If the doctoral student and the supervisor agree, a maximum of ten guests may be present during the examination.

⁴ All committee members and the doctoral candidate may participate virtually. Audio or video recordings are prohibited.

⁵ The language of the presentation and examination is English or German.

Section 6: Final clauses

Art. 14 Transitional provisions regarding the doctoral examination

Doctoral examinations that were registered for before 1 January 2022 are subject to the rules that applied at the time the examination was scheduled, as follows:

- a. The doctoral examination is public and lasts 90 minutes at most, including a presentation of 30-40 minutes.
- b. The examination committee may not include members from outside ETH.
- c. The experts' reports must be submitted at least three weeks before the doctoral examination.

Art. 15 Transitional provisions regarding regular doctoral studies

Doctoral students who are completing their regular doctoral studies under the previous regulations in accordance with Art. 65 of the ETH Zurich Ordinance on the Doctorate are subject to the provisions set out in Annex 1.

Art. 16 Entry into force

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

Application of salary rates

Salary rates for doctoral students are governed by the stipulations set out in Art. 8, Para. 3 of the Ordinance Governing Scientific Employees of ETH Zurich⁵, in association with Section 1 (3) of the Directives for Doctoral Students Employed at ETH Zurich⁶.

The department applies fair and transparent salary rates for 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 additional essential functions (e.g., in teaching, administration or supervision of equipment) this should be compensated by a higher salary rate.

⁵ SR 172.220.113.11

⁶ RSETHZ 622

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

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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.