

Department of Environmental Systems Science (D-USYS)
Detailed stipulations regarding the doctorate

of 27 January 2022

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 Environmental Systems Sciences 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 details governing the doctorate at the ETH Zurich Department of Environmental Systems Science (D-USYS). They are based on the fundamental provisions of the ETH Zurich Ordinance on the Doctorate of 23 November 2021³ and on the Rector's Implementation Provisions for the ETH Zurich Ordinance on the Doctorate of 23 November 2021⁴.

² The measures described below are intended to contribute to the quality assurance of doctoral theses in D-USYS. Decisive for the quality of doctoral theses are doctoral students, their supervision and the topic of the doctoral project.

Art. 2 Doctoral committee

¹ The doctoral committee is composed of at least four professors from different research fields.

² In the event of a tie vote, the chairperson of the doctoral committee has the casting vote.

¹ Resolution of the D-USYS Department Conference of 3 December 2021 (approval of the detailed stipulations)

² SR **414.133.1**

³ SR **414.133.1**

⁴ RSETHZ **340.311**

Art. 3 Person responsible for the doctorate at the department

¹ The chairperson of the doctoral committee is the person responsible for the doctorate at D-USYS.

² This person may make recommendations regarding the following for approval by the doctoral committee:

- a. Members of the aptitude committee
- b. Co-examiners

Section 2: Admission to the doctorate

Art. 4 Doctoral plan

¹ The doctoral plan consists of 10-15 pages and must include the following:

- a. D-USYS title page
- b. Summary/abstract (approx. half a page)
- c. Research project details (main part)
 - 1. Current research status
 - 2. Research objectives/research questions
 - 3. Work plan (incl. methodology)
 - 4. Optional: Selection of preliminary results
 - 5. Schedule and milestones
 - 6. References/literature (not included in page count)
- d. Brief description of teaching tasks during the doctorate
- e. Brief description of substantial further tasks (such as organisation of workshops, other tasks within the research group, etc.)

The template provided by ETH Zurich must be used.

² The doctoral plan must be submitted to the D-USYS Doctoral Administration by email as a PDF no later than 15 working days before the aptitude colloquium.

³ If necessary, an updated version of the doctoral plan can be submitted after the aptitude colloquium, but this is not obligatory. The decision lies with the supervisor and the doctoral student.

Art. 5 Aptitude colloquium

¹ Doctoral students present their doctoral plan at the aptitude colloquium 12 months after provisional admission at the latest. The institutes are responsible for organising the aptitude colloquium, which can be conducted publicly. The chairperson of the aptitude colloquium communicates the decision of the aptitude committee («passed»/«failed») to doctoral students and Academic Services by means of a form.

² The aptitude colloquium lasts a maximum of one hour and proceeds as follows:

- a. Presentation of the project/research proposal in the form of a 20-minute talk
- b. Question and answer session
- c. In-depth discussion and recommendations by the aptitude committee. The exact discussion procedure can be regulated by the institutes.

³ If the aptitude colloquium is «failed» it may be repeated once, provided that the doctoral thesis supervisor agrees. A repetition may only be refused if the aptitude committee was unanimous in assessing the first attempt as «failed». Any repetition must take place within three months of the first definitive result. Here the revisions required must be entered on the form (Para. 1, fourth sentence).

Art. 6 Aptitude committee

At the request of the supervisor and after consultation with the doctoral student, the aptitude committee can be expanded to include further experts (e.g., project collaborators). The following persons may be appointed as chairperson:

- a. Appointed professors of D-USYS or any other ETH department
- b. Assistant professors of D-USYS or any other ETH department
- c.⁵ Adjunct professors of D-USYS

Section 3: Supervision of the doctorate

Art. 7 Approval of adjunct professors and *PrivatdozentInnen* as doctoral thesis supervisors

¹ If the doctoral thesis is to be supervised by adjunct professors or *PrivatdozentInnen*, the approval of both the institute and the department is required. In such cases the following documents and information must be submitted to the D-USYS Doctoral Administration before the request for admission goes to Academic Services:

- a. Information on financing (see «Directives for Doctoral Students Employed at ETH Zurich»)
- b. Name of the ETH professor acting as co-examiner
- c. Project description
- d. Registration dossier of the candidate as per Academic Services requirements
- e. Form «Supervision of the Doctorate by a Privatdozent or an Adjunct Professor»

² The D-USYS Doctoral Administration manages the approvals process and then submits the registration dossier to Academic Services.

⁵ Version according to the D-USYS Department Conference resolution of 03.05.2024, in force since Autumn Semester 2024. Valid for all doctoral students who are doing their doctorate in accordance with these detailed stipulations.

Art. 8 Progress report

The internal department template must be used for the progress report. In addition to research progress, the progress report documents, in detail, suggestions for the development of the doctoral thesis, potential difficulties with the thesis and proposed solutions. The doctoral thesis supervisor and the doctoral student are both obliged to store progress reports and the respective status conversation reports until the time of dematriculation. If legal proceedings are pending the documents must be retained until a legal ruling has been issued.

Section 4: Regular doctoral studies

Art. 9

¹ To obtain the minimum 12 ECTS credits required in regular doctoral studies, the doctoral student must either pass performance assessments or make active, verifiable contributions in other areas. 1 credit generally corresponds to a workload of 25-30 hours. Credits must be earned in each of the following three categories:

- a. Consolidation of knowledge in the research area of the doctoral thesis and the extension of knowledge beyond the original discipline, e.g., through attendance of courses designed especially for doctoral students, or regular courses from the Master's degree programme or the third year of Bachelor's degree studies
- b. Acquisition of transferable skills, e.g., by attending soft-skills courses or participating in ETH Zurich bodies or committees
- c. Integration into the scientific community, e.g., by attending international conferences

² Doctoral students must acquire at least 1 credit by attending a course on the topic of ethics and good scientific practice. This academic achievement is recognised in the transferable skills category.

³ An overview of the achievements recognised can be found in item 10.3 of the Rector's Implementation Provisions for the ETH Zurich Ordinance on the Doctorate.

⁴ The following are not recognised towards regular doctoral studies:

- a. Achievements before starting the doctorate
- b. Achievements in the framework of multiple matriculations at another level of studies, except for credits earned in the context of Teaching Diploma/Teaching Certificate courses
- c. Participation in seminars/courses of the individual professorship, such as group meetings and retreats
- d. Participation in teaching
- e. Attendance of courses with no verification of personal performance

Section 5: Doctoral thesis and doctoral examination

Art. 10 External doctoral thesis projects

External doctoral thesis projects require the approval of the doctoral committee. The supervisor is responsible for ensuring that the supervision of doctoral students at the external institution is guaranteed in accordance with ETH regulations.

Art. 11 Cumulative doctoral theses

¹ If a publication that is already part of one or more doctoral theses of ETH Zurich is to be considered as part of a cumulative doctoral thesis, the following points apply:

- a. The doctoral thesis must refer clearly to the previous and planned ETH Zurich doctoral thesis or theses in which the publication was or will be used (author, title, year, page references, doi-link if already available) and the publication itself must be correctly cited.
- b. The doctoral candidate's own contribution to the corresponding chapter in the doctoral thesis must be described in detail.

² For co-authored publications, a declaration regarding the doctoral candidate's own contribution is recommended even if these publications are not part of several doctoral theses.

Art. 12 Registration and approval of co-examiners

At least one co-examiner must come from outside ETH Zurich. Eligible are active professors from other universities or persons who are proven experts in the area of the doctoral thesis and are equivalent to professors in this. This does not include persons from universities of applied sciences or private industry with the corresponding expertise; these may, however, be appointed as further members of the examination committee.

Art. 13 Examination committee

¹ The composition of the entire examination committee must be submitted to the D-USYS Doctoral Administration no later than three months before the examination. The request is checked by the chairperson of the doctoral committee and approved by the doctoral committee.

² It is mandatory to have an independent person (e.g., someone from outside the professorship who is not collaborating in the doctoral thesis project) on the examination committee. This can be the external co-examiner. If there is a relationship of dependence between the external co-examiner and the supervisor and/or the doctoral student, another independent co-examiner must be appointed.

Art. 14 Procedure before the doctoral examination and submission of examination copies and experts' reports

¹ Registration for the doctoral examination may only proceed with the consent of the doctoral thesis supervisor and in consultation with the co-examiners.

² The examination copy of the doctoral thesis must be submitted in electronic form by the doctoral student to the examination committee and the D-USYS Doctoral Administration at least 20 working days before the examination.

³ Registration must take place at least fifteen working days before the examination date and involves submitting a printout of the title page of the thesis and the official Academic Services form. This form contains:

- a. A request for the issuing of the doctoral degree certificate
- b. A declaration by the doctoral student that they have authored the doctoral thesis independently and have not submitted it to any other university
- c. A confirmation by the department that the doctoral student has acquired the full number of credits required for doctoral studies
- d. A confirmation by the department that an examination copy of the doctoral thesis has been delivered in the prescribed form

⁴ The experts' reports must be submitted in electronic form to the D-USYS Doctoral Administration at least five working days before the examination. The D-USYS Doctoral Administration checks whether the reports meet the minimum requirements according to item 11.8 of the Rector's Implementation Provisions for the ETH Zurich Ordinance on the Doctorate.

Art. 15 Doctoral examination and presentation

¹ Doctoral examinations are usually open to the public. If doctoral students wish to have a non-public examination, they must submit a request to the D-USYS Doctoral Administration.

² The examination includes a presentation (duration 20 minutes), followed by a defence, including questioning by the members of the examination committee. Questions from the audience are allowed. The doctoral examination lasts at least 80 minutes; any questions from the audience, however, are not counted towards the minimum duration of the doctoral examination.

Art. 16 Procedure after the doctoral examination

If the doctoral thesis was accepted with additional requirements, a maximum revision period of six months applies.

Section 7: Final clauses

Art. 17 Transitional provisions

¹ Doctoral examinations conducted before 1 January 2024 are subject to the provisions on co-examiners set out in Annex 1.

² 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. 18 Entry into force

These detailed stipulations enter into force retroactively on 1 January 2022. They replace the detailed D-USYS stipulations regarding doctoral studies of 1 November 2013.

D-USYS guidelines for the employment of doctoral students

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 Zurich⁶, in association with Section 1 (3) of the Directives for Doctoral Students Employed at ETH Zurich⁷.

Premises

- In principle it is desirable for doctoral students to be deployed in teaching and operational tasks.
- If deployment in such tasks in addition to the doctoral project exceeds the «usual» level generally expected of all doctoral students, this should be rewarded with higher remuneration.
- The proposed threshold values for the time spent on extra tasks in teaching and operations, above which a higher classification is foreseen, should be understood as guidelines.

Guidelines

- Linear subdivision of the 30% time range allowed for extra work in addition to the doctoral project:

Level	Time requirement in days per year	% Working time (average over one year)
1 = standard	0 - 15	0 - 6
2	15 - 30	6 - 12
3	30 - 45	12 - 18
4	45 - 60	18 - 24
5	60 - 75	24 - 30

- The thresholds between the levels are to be understood as guideline values. They serve to ensure transparency and harmonisation in the remuneration of doctoral students at D-USYS. They consider the different needs, cultures and financial framework conditions of the individual institutes and professorships.
- In consultation with the doctoral student, working time spent on tasks in addition to the doctoral project that exceeds the employment level during a year may also be compensated by a corresponding increase in the employment level in a later year or by an extension of employment.
- The classification and the services beyond the doctoral project expected of doctoral students are communicated to doctoral students during the initial employment interview.

Approved by the D-USYS Department Conference on 27 February 2015; Entry into force 1 March 2015

⁶ SR 172.220.113.11

⁷ RSETHZ 622

Detailed regulations for Doctoral Studies D-USYS (effective on 01.11.2013)

The Department of Environmental Systems Science decided at the departmental conference in completion of the Ordinance on Doctoral Studies ETH Zürich of 1 July 2008 (Version 1 November 2013) and the Rector's Implementation Provisions of 17 October 2013 (Version 1 November 2013):

Art. 1

General regulations

¹ The doctoral students discuss the continuing education programme of their doctoral studies with the supervisor. The supervisor and the doctoral student compile a thematically adapted doctoral programme.

² For doctoral studies outside of the ETH domain, a qualitative equivalent doctoral programme must be compiled, which is individually adapted to the situation.

Art. 2

Objective, form and requirements (see ODS Art. 23 and Art. 24)

¹ The educational activities are approved as credits. (One credit corresponds to a workload of between

25 - 30 working hours). 12 credits are required, of which at least one third has to be acquired outside of the research field.

² To acquire credits the doctoral student must prove a personal contribution.

³ Doctoral students who finish their doctoral thesis in less than three years, have to acquire proportionally less credits.

Art. 3

Elective courses for the acquirement of credits

¹ All offered courses according to the actual semester programme and courses of further training "teaching certificate" at Swiss Universities (entire ETH domain and Universities). The "teaching certificate" can acquire a maximum of 4 credits.

² Only language courses, offered by the Language Center UZH/ETHZ as "Courses for Doctoral Students", can acquire a maximum of 4 credits. The credits are only accepted, if certification of the course is given by the Language Center UZH/ETHZ.

³ Further education courses and advanced studies, summer schools and intensive courses in Switzerland and abroad organized by accredited universities and research institutions.

⁴ For the visit of courses with limited attendance, admission cannot be granted. Generally the enrolment and attendance fee due, is paid by the doctoral student.

Art. 4

Acquirement of credits outside of courses

Credits can also be acquired by performance outside of courses.

Possibilities are:

- Presentations (lecture, poster) at scientific events, such as conferences, symposiums, workshops. A maximum of 4 credits can be acquired.

- Participation in the organisation of scientific events, review activity, information meetings, or as collaboration in a commission within the department or the ETH Zurich. A maximum of 2 credits can be acquired.

- Contributions at colloquia and seminars are also worth 2 credits maximum.

Art. 5

Not creditable courses and performances

¹ Examinations and seminars, that a doctoral student was required to pass for admission, cannot be credited for the doctoral studies.

² Courses, which have been attended as part of the Bachelor-/Master programme can also not credit.

³ Not creditable is the visit of courses without the evidence of personal contribution.

Art. 6

Modality of the confirmation of acquired credit points

For ETH courses the fulfilment of the performance assessment as per course catalogue is mandatory, only electronically issued credits are accepted. On the confirmation sheet for doctoral students, only courses which cannot be enrolled under "myStudies" will be confirmed.

Art. 7

Control of the required credits

It is the responsibility of the supervisor of the dissertation to monitor the acquirement of the credits for the doctoral studies. The supervision of the documents must be ensured to fulfil the rules, this is confirmed by the supervisor before the doctoral student can register for the Doctoral exam by signing the Transcript of Records/Course Attendance Confirmation Sheets.

Art. 8

Proof of acquiring credits for doctoral studies

The departmental secretariat confirms the obtained necessary 12 credits for the doctoral studies on the form "Registration for the Doctoral Examination" based on the signatures of the supervisor (Art. 7) on the transcript of records and on every confirmation sheet for doctoral students.

Art. 9

Exception regulations

Should there be uncertainty regarding the application of the provided guidelines, the management of the department (head of the department or doctoral committee) will make a decision in cooperation with the supervisor.

Art. 10

Transition rules

The previous regulations apply to doctoral students who started their doctorate before 31.10.2013.

Approved at the departmental conference of the D-USYS on: 13.12.2013/approved from the Executive Board ETHZ: 11.03.2014