



Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich

Department of Computer Science (D-INFK)

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 Computer Science¹ at ETH Zurich, and pursuant to Art. 52 of the Ordinance on the Doctorate ETH Zurich of 23 November 2021²,

hereby decrees the following detailed stipulations regarding the doctorate:

Section 1 – General

Art. 1 Scope and purpose

¹ These detailed stipulations govern the department-specific details for the doctorate at the Department of Computer Science (D-INFK) at ETH Zurich. They are based on the fundamental provisions of the Ordinance on the Doctorate ETH Zurich (DO) of 23 November 2021³ and on the Rector's Implementation Provisions for the ETH Zurich Ordinance on the Doctorate of 23 November 2021⁴. They supplement and make these regulations specific.

² The measures described below are intended to contribute to the quality assurance of doctoral theses in the D-INFK. The ultimate responsibility in ensuring the quality of the doctoral theses lies with the doctoral students and their supervisors.

Section 2 - Recruitment and Admission to the Doctorate

Art. 2 Recruitment

¹ Faculty members recruit their doctoral students. Hiring is possible any time during the year.

¹ Resolution of the D-INFK department conference of 27 September 2021 (approval of the detailed stipulations).

² SR 414.133.1

³ SR 414.133.1

⁴ RSETHZ 340.311

² For direct doctorate students, the deadlines and requirements of the direct doctorate program apply.

Art. 3 Admission

¹ Applicants submit the application documents to the Academic Services. Provisional admission is possible any time during the year, there are no deadlines.

² Admission to the direct doctorate program is possible once a year at the start of the autumn semester.

Art 4 Doctoral Plan (cf. DV Art. 11, AB item 3)

¹ Each doctoral student must compile their own doctoral plan. An electronic copy must be submitted within 11 months after provisional admission to the doctoral committee for the attention of the members of the aptitude committee and the D-INFK doctoral administration.

² The doctorate plan must provide:

- a. information on the research objectives,
- b. discussion of related work,
- c. work packages,
- d. corresponding publication plan,
- e. a timeline,
- f. the participation in teaching,
- g. tentative study plan for the mandatory 12 credits,
- h. and other duties.

³ Detailed information regarding the structure and content of the doctoral plan, including a template, is available in the "D-INFK Guidelines for Doctoral Plans."

⁴ If a doctoral plan does not fulfil the required form and content, the doctoral committee may reject it. The doctoral student then has a week to revise the doctoral plan.

Art. 5 Aptitude Colloquium (cf. DV Art. 13, AB item 4)

¹ All doctoral students must subject themselves to a discussion in an aptitude colloquium within 12 months of provisional admission. Direct doctorate students must complete the aptitude colloquium within twelve months after the master's graduation.

² The aptitude committee comprises the supervisor, the second advisor, and a representative of the doctoral committee, or another person named by the doctoral committee who must be a member of the D-INFK Professors' Conference as chair of the aptitude committee. One of the aptitude committee members must be an o/ao⁵ faculty member. The doctoral committee can add further persons as needed who will also be authorized as assessors.

⁵ o/ao = ordentliche und ausserordentliche Professorinnen und Professoren = full and associated faculty

³ At the latest four weeks before the colloquium the supervisor sets the date in agreement with the involved persons and the D-INFK doctoral administration.

⁴ The aptitude colloquium consists of a presentation of 20 minutes by the doctoral student followed by a discussion in which the aptitude committee asks questions. The aptitude colloquium lasts at least 45 minutes.

⁵ After the assessment, the aptitude committee decides the outcome and declares it "passed" or "failed." The chair must write a protocol of the examination. A failed assessment may be repeated once. Any repetition must take place within three months of the release of the result for the first attempt. If the doctoral student has failed decisively, Academic Services will initiate dematriculation.

Section 3 - Supervision of the Doctorate

Art. 6 Supervisor (cf. DV Art. 5 para. 1)

The supervisor must be a D-INFK o/ao professor, assistant professor, or a titular professor.

Art. 7 Second Advisor

In agreement with the doctoral student, the supervisor nominates the second advisor. The appointment must be made at the latest by the time the doctorate plan is submitted. The second advisor must be an ETH professor, a titular professor, a "Privatdozierende/r" or a senior scientist or an external expert of equivalent rank.

Section 4 - Individual Doctoral Studies

Art. 8 Regular doctoral studies (cf. DV Art. 36, AB item 10)

At least one course/activity in each category 1 – 3 must be taken in order to achieve ECTS credits:

1. Consolidation of knowledge in the research area:
 - Courses on master or doctoral level from ETH or University of Zurich
 - D-INFK institute / doctoral colloquia (with presentation)
2. Transferable skills
 - At least one credit by attending an event on the theme of ethics and good scientific practice
 - Courses/workshops on "social and personal competencies," offered by D-GESS. Upon request to the doctoral committee, other courses can be allowed.
 - Didactic courses and range of courses for the teaching diploma / teaching certificate
 - Language courses offered by the UZH/ETH Language Center
 - Collaboration in boards / committees / university bodies (minimum duration of 1 year),

3. Integration into the scientific community
 - Summer schools
 - Conferences outside of ETH with talks/posters

Section 5 - Doctoral Thesis and Doctoral Examination

Art. 9 Cumulative doctoral thesis (cf. AB item 11.2)

The research reported in any publications must be incorporated into the main text of the thesis so that it is a single, coherent document reporting on the thesis work.

Art. 10 Examination committee, notification and approval of co-examiners (cf. DV Art. 40, AB item 11.3)

¹ The examination committee consists of:

- a. the chairperson, which must be a D-INFK o/ao professor,
- b. the thesis supervisor as an examiner,
- c. between one and three co-examiners.

² The set of co-examiners must include:

- a. one external co-examiner; this can be an active professor at a university other than ETH or a person of the same scientific domain equivalent to a professor, e.g., research scientist at PSI, MPI, Centre national de la recherche scientifique, etc. An external co-examiner can also be a member of a corporate research institution with a doctoral degree and an accomplished track record of publications. Examples include Microsoft Research, Google Research, IBM, Disney Research or others
- b. at least one independent examiner who has experience of graduating their own doctoral students

³ The Department Conference (DK) must approve all examination committees based on the recommendation of the doctoral committee. The supervisor must submit a proposal for the set of co-examiners to serve on the examination committee to the D-INFK doctoral administration at least ten days before the DK. The proposal must include the following information:

- A declaration of any dependencies between the co-examiners and the supervisor, including research collaborations or former supervisor/student and employee/employer relationships.
- For each external co-examiner, a full curriculum vitae including a list of publications for the last five years.

⁴ The set of co-examiners must provide good coverage of the scientific domain of the thesis.

Art. 11 Procedure before doctoral examination and submission of examination copies and reports (cf. DV Art. 39, AB item 11)

¹ At the latest eight weeks before the exam the supervisor sets the date of the doctoral exam in agreement with the doctoral student, the co-examiners, and the D-INFK doctoral administration.

² Registration for the doctoral examination proceeds with the approval of the examiner in consultation with the co-examiners and must take place at least 15 working days before the examination date with the official Academic Services form.

³ The examiner and all co-examiners must approve the thesis before the examination. They are required to write a report on the thesis, which must be submitted to the D-INFK doctoral administration at least eight days before the examination. The thesis report should be 2-3 pages in length and should summarize the main contributions of the thesis and comment on the quality of the work in terms of the scientific content and the presentation. If reports are not received by the deadline, then the doctoral committee has the right to cancel the examination. The thesis and all reports are made available to all professors within the department before the examination.

Art. 12 Doctoral examination (and presentation) (cf. DV Art. 39, AB items 11.6 and 11.7)

¹ The examiner and co-examiners should be present at the examination either physically or remotely via video conferencing.

² The examination consists of a presentation of the thesis of 30 minutes by the doctoral student followed by a discussion session during which examiners ask questions of the doctoral student. It is the responsibility of the chair of the examination committee to ensure that each examiner has sufficient examination time available. The doctoral exam lasts at least 90 minutes.

³ The examination is open to all academic employees and official guests of D-INFK as well as any external collaborators. At the discretion of the chair, attendees who are not a member of the examination committee may be allowed to ask questions once the official examination has been declared to be finished.

⁴ The examination committee will meet after the examination to decide the outcome. Any elected professor within D-INFK who attended the examination may also participate in this meeting as an observer.

⁵ The chair of the examination committee must write a protocol of the examination. If the committee decides that the doctoral student has not passed the examination, it may be retaken within six months.

⁶ Once a doctoral student has passed their exam, they are required to submit an electronic copy of the final version of their thesis to the D-INFK doctoral administration. They will then prepare a request for the following Department Conference to vote on the awarding of the thesis and the doctoral title. A copy of the thesis will be made available online to all members of the Department Conference for at least four days before the meeting. The title and content of a thesis can no longer be altered after approval by the Department Conference.

Section 6 - Final Provisions

Art. 13 Transitional provisions

Doctoral students who complete their individual doctoral studies under the previous regulations in accordance with DO Art. 65, the following provisions apply:

- At least one third of the required credits must be obtained outside the doctoral student's respective research field.
- Any doctoral seminar or master course of D-INFK, as well as courses on master or doctoral level from other ETH departments or University of Zurich.
- Additional qualification courses for the certificate of teaching ability can be credited with max. 4 credits.
- Language courses offered by the UZH/ETH Language Center can be credited with up to 4 credits.
- A maximum of 4 credits from management and personal development courses offered by ETH Zurich and/or summer schools with scientific content.
- Participation in one or more commissions within ETH Zurich can be rewarded with 1 credit per semester. Being a member of the VMI (Verein des Mittelbaus) in the department conference will be honored with 0.5 credits per semester. A maximum of 2 credits can be awarded from such activities.

Art. 14 Entry into force

These detailed stipulations enter into force retroactively as of 01.01.2022. They replace the detailed stipulations of the D-INFK on doctoral studies of 20 May 2015.

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 at ETH Zurich⁶, in conjunction with item 1 Para. 3 of the directives for doctoral students employed at ETH Zurich⁷.

¹ Doctoral students at D-INFK are paid a fixed-rate salary. At the first level of their career (first year), they receive a fixed salary.

² The salary rates for doctoral students are Rate 4 or Rate 5 according to annex 2 of the Ordinance governing scientific employees of ETH.

³ Variable salary rates within a research group and differential rates based on perceived academic performance are not allowed.

⁴ Extra efforts for non-research tasks such as service, etc. can be compensated by paying out a bonus.

⁶ SR 172.220.113.11

⁷ RSETHZ 622