

Faculty of Science

Doctoral Program Regulations

For the Conferral of a Doctorate at the Faculty of Science at the University of Zurich

Version November 30, 2020

A General Section

I. General Regulations

§ 1 Area of application

These regulations contain elaborations on the Ordinance for Obtaining a Doctoral Degree at the Faculty of Science (MNF).¹

§ 2 Program-specific regulations

The specific regulations of individual doctoral programs, the General Doctorate as well as the specifics of sections of the curriculum are addressed in the corresponding sections of Part B.

§ 3 A doctorate is generally completed as part of a doctoral program. Conferral of a doctorate as part of a General Doctorate requires the permission of the Committee for Individual Doctorates.

§ 4 Detailed explanations

Detailed Explanations are located in the guidelines of each doctoral program.

II. Admission

§ 5 Admission in general

- ¹ Admission is regulated according to §§ 7 and following of the Ordinance for Obtaining a Doctoral Degree.¹
- ² The specifics of the application and admissions process for each doctoral program are addressed in the corresponding sections of Part B.
- ³ Admission to a General Doctorate is determined by the Committee for Individual Doctorates.

¹ Ordinance for Obtaining a Doctoral Degree at the Faculty of Science at the University of Zurich (Promotionsverordnung; PVO) from January 31, 2011 (415.463).

§ 6 Admissions criteria and process

- ¹ The criteria for admission are defined by the boards of the doctoral programs. The criteria are described in Part B of these regulations.
- ² The admissions process is also determined by the requirements of the individual doctoral programs.
- ³ Admission to a General Doctorate requires submission of a request to the Vice Dean of Studies. The MNF Committee for Individual Doctorates evaluates the request. The committee may accept the request with or without additional requirements or deny it. Details are discussed in Part B.

§ 7 Conditional admission or admission with additional requirements

- ¹ The decision on admission will detail whether any conditions or additional requirements must be fulfilled.
- ² The admission decision will detail any additionally required coursework, the corresponding deadlines and the permitted number of failed attempts.
- ³ Coursework, which was completed as part of a Master of Advanced Studies Program, may not be taken into account for the fulfillment of conditions or additional requirements.

§ 8 Matriculation

- ¹ Doctoral students must submit a request for matriculation at the Student Services of the University of Zurich before beginning their doctorate. The deadlines and formalities of the University of Zurich hereby apply. A confirmation of admission to a doctoral program or to a General Doctorate must be presented for matriculation.
- ² Doctoral students must remain matriculated during the entirety of their doctorate.

III Supervision of Doctoral Students

§ 9 Doctoral committee

- ¹ The PhD advisor must form the doctoral committee with the understanding of the doctoral student within 6 month of the beginning of the doctorate. The doctoral committee must have at least three members, whereof at least two including the committee head must possess the right to award a PhD at the Faculty of Science. The members of the committee as well as any changes to its membership must be recorded with the doctoral program. In the case of a General Doctorate, the MNF Student Affairs Office should be informed directly.
- ² The PhD advisor and the doctoral committee should give the doctoral student regular feedback about the quality and progress of his or her primary research, doctoral studies and teaching. The doctoral committee should meet with the student annually. The outcome should be reported to the doctoral program. In the case of a General Doctorate, the Office of Student Affairs of the Faculty of Science should be informed directly.

§ 10 Doctoral agreement

¹ The doctoral committee and the PhD student should complete a doctoral agreement within 6 months of the beginning of the doctorate. The agreement must be submitted to the doctoral program, or to the Office of Student Affairs of the Faculty of Science in the case of a

General Doctorate. Any changes or modifications are to be reported to the doctoral program, or to the MNF Student Affairs Office in the case of a General Doctorate.

- ² The doctoral agreement should address the following points:
- Composition of the doctoral committee
- Title or working title of the dissertation
- A short description of the research project
- Milestones and intermediate goals
- Curricular portion of the doctoral studies (internal and external coursework)
- Teaching assistance
- ³ The agreement may be modified during the annual meetings of the doctoral committee according to § 15.2 PVO; these modifications must be reported to the doctoral program, or the MNF Student Affairs Office in the case of a General Doctorate.

IV. Dissertation

- § 11 The doctorate centers around the writing of a dissertation.
- § 12 Form of the dissertation
- ¹ A dissertation consists of a monograph or a cumulative dissertation.
- ² A cumulative dissertation consists of a collection of manuscripts and/or publications with related content that address the same overarching question. It must contain an introductory chapter, which places the various contributions within a coherent framework regarding the overarching question, demonstrates scientific connectedness and clarifies the merits of such a collection as opposed to presenting an individual part.
- ³ The doctoral committee determines the form of the dissertation with the understanding of the PhD student.
- ⁴ In publications with multiple authors included in a cumulative dissertation, the contributions of the doctoral student must be clearly marked.
- ⁵ Program-specific details regarding cumulative dissertations are addressed in Part B of these regulations.

V. Curricular Portion

§ 13 Curricular portion of a doctorate

The curricular portion must cover at least 12 ECTS Credits. The specific regulations for each doctoral program or a General Doctorate are discussed in Part B of these regulations.

§ 14 Modules and ECTS Credits

¹ Modules must be completed as part of the curricular portion. The corresponding coursework will be accredited according to the European Credit Transfer and Accumulation System (ECTS).

- ² The ECTS Credits for a module are either awarded fully or not at all; partial accreditation is not possible.
- ³ Given a prior arrangement, the doctoral committee can recognize and accredit external coursework (for instance at conventions, summer schools, courses for PhD-candidates) with the understanding of the PhD student. For this purpose, the student must personally complete verifiable coursework and a responsible supervisor must complete and submit a report.
- ⁴ Within the curricular portion, coursework in areas of transferrable skills may be accredited. Specificities are discussed in Part B of these regulations.

§ 15 Teaching assistance

- ¹ A teaching assistance of at least 100 hours and no more than 420 hours is a component of all doctoral programs.
- ² The specifics are addressed in Part B of these regulations.

VI. Doctoral Degree

§ 16 Submission of the Dissertation

¹ PhD defense registration

Registration for a PhD defense must be completed online on the homepage of the Faculty of Science. The registration includes the submission of a dissertation abstract for the graduation ceremony (max. 50 words in German or English for non-academic audience).

In addition, students should hand in the following documents at the Office of Student Affairs Office of the Faculty of Science:

- A copy of the dissertation's title page
- Curriculum vitae
- A copy of their ID or passport
- A list of acquired ECTS Credits and if necessary a confirmation for any conditions or additional requirements
- Proof regarding the completed teaching assistance
- Exam dates (a PhD defense can take place no sooner than 4 weeks after an application.)
- ² The defense must take place within 12 weeks following the application. Any exceptions must be approved by the Vice Dean of Studies.

§ 17 Expert report for a dissertation

- ¹ An expert report is prepared by the head of the doctoral committee as well as by the PhD advisor (if they are not the same person). The doctoral committee selects the reviewer responsible for the external expert report.
- ² According to § 20 Abs. 3 PVO, an expert in the respective field working outside the University of Zurich is eligible as an external reviewer as long as they were not involved in the dissertation project. They may be a member of the doctoral committee so long as they did not coauthor the dissertation.

- ³ The expert reports must be finished 15 days prior to the public colloquium.
- ⁴ The process for awarding dissertations is described in this document's appendix.
- ⁵ Once they have earned their doctorate, students may see their doctoral documents, including anonymous expert reports (PVO VIII. Rechtsschutz § 34).

§ 18 Circulation round

- ¹ The dissertation and the expert reports will be submitted to the circulation round 14 days prior to the colloquium.
- ² The circulation round must include at least two faculty members of the MNF. Additional information is discussed in Part B of these regulations.
- ³ Members of the circulation round may announce objections to the dissertation or the expert reports up until 4 days before the colloquium. The doctoral committee then rules on objections.

§ 19 PhD defense

- ¹ The PhD defense consists of a maximally one hour public colloquium on the dissertation as well as a disputation of at most two hours, which is closed to the public.
- ² The Office of Student Affairs of the Faculty of Science informs all the members of the professorial staff of the dissertation's title and author, the name of the responsible faculty member and the time and place of the colloquium.
- ³ The head of the doctoral committee invites the members of the doctoral committee and of the circulation round to participate in the disputation.
- ⁴ Members of the doctoral committee, the dissertation's reviewers as well as teaching staff with the right to confer PhDs are permitted to take part in the examination at the disputation. At least 3 examiners must be present at the defense and no fewer than 2 must possess the right to confer PhDs at the Faculty of Science.
- ⁵ After finishing the defense, a signed transcript of the proceedings should be conferred to the Office of Student Affairs of the Faculty of Science.

§ 20 Validation

- ¹ The doctoral degree will be validated by the Committee for Student Affairs for review by the Faculty Assembly as long as the following documents arrive at the Office of Student Affairs of the Faculty of Science one week before the MNF Committee for Student Affairs' meeting:
- Transcript of the doctoral defense
- All expert reports on the dissertation
- A list with the circulation round's signatures
- ² The PhD conferral will become legally valid if the obligatory copies of the dissertation are handed in to the Central Library within six months after validation by the faculty.

VII. Final Provision

§ 21 Taking effect

These regulations take effect on the 13. December 2012.

B Specific Section

Part B contains the regulations for the following doctoral programs:

- Biomedicine
- Biomolecular Structure and Mechanism
- Cancer Biology
- Chemical and Molecular Sciences
- Computational Sciences
- Data Science
- Drug Discovery
- Ecology
- Epidemiology and Biostatistics
- Evolutionary Biology
- General Doctorate
- Geography/Earth System Sciences
- Integrative Molecular Medicine
- Mathematics
- Microbiology and Immunology
- Molecular and Translational Biomedicine
- Molecular Life Sciences
- Neuroscience
- Physics
- Plant Science
- Public Understanding of Science
- RNA Biology
- Science and Policy
- Systems Biology
- Theoretical Astrophysics and Cosmology

Appendix

Awarding of Distinctions for Doctoral Theses at the Faculty of Science

The Faculty of Science (MNF) can award distinctions to exceptional doctoral theses.²

Distinctions for doctoral theses are awarded due to their outstanding scientific quality. As a rule of thumb, a doctoral thesis being suggested for such an award should belong to top 5% of theses in their subject area. The Faculty does not set a limit or quota for the number of distinctions awarded, but the Office of Student Affairs of the Faculty of Science records the number of honors awarded per subject and year as a form of monitoring.

Those making a proposal should consider the following rules:

- 1. The doctoral committee should be in agreement as to whether to award the distinction.
- 2. An internal and two external reviews recommending the distinction must be present. The following points must be answered in English in the external reports:
 - A. How would you rate the overall quality of the thesis based on your experience (please provide a percentile value, e.g. top-x%)?
 - B. How innovative is the work compared to other similar works in the field?
 - C. How do you estimate the impact of this PhD thesis in the field?
 - D. If possible, can you quantify the individual contribution of the student to the achievements presented in the thesis?
 - E. How many MSc and PhD students have you supervised?
 - F. Please disclose possible conflicts of interest with applicant and supervisor of student (shared research projects, grants, publications within past 6 years).

The external reviewer should not be a member of the doctoral committee and should not be biased.

- 3. A thesis may be submitted for consideration at the Student Affairs Office if it fulfills the requirements according to Section III § 7.3 of the Ordinance for Obtaining a Doctoral Degree (2011)³.
- 4. The individual making the proposal should confirm the exceptional nature of the dissertation and briefly explain why it should receive a distinction.
- 5. A copy of the thesis along with the proposal and the two reviews should be handed in to the Office of Student Affairs of the Faculty of Science.

² «Die Fakultät verleiht für hervorragende Dissertationen eine Auszeichnung, falls mindestens zwei Gutachterinnen oder Gutachter und die Promotionskommission eine Auszeichnung empfehlen und einen entsprechenden Antrag stellen» (§ 28 Ordinance for Obtaining a Doctoral Degree 2011). (The faculty awards distinctions to exceptional dissertations if recommended by two reviewers and the doctoral committee and submit the relevant proposal.)

³ The dissertation must be approved by a professor at the Faculty of Science or by an individual who possesses the right to confer PhDs at the Faculty of Science. This person must be willing to function as a member of the doctoral committee.

The MNF Awards Committee reviews and decides on distinctions.

A proposal for a distinction may be submitted to the Office of Student Affairs of the Faculty of Science any time before a student's definitive graduation, that means before the circulation of the thesis. Honors should be awarded at the same time as the doctoral degree. For this purpose, a proposal should be submitted safely ahead of the graduation ceremony.

The Office of Student Affairs of the Faculty of Science is open for any further questions.