## Faculty of Science

# Doctoral Program Regulations - Data Science 

Version of 12 March 2020

## I. General Regulations

1. These regulations are based on the Ordinance for Obtaining a Doctoral Degree and the Doctoral Program Regulations Part A of the Faculty of Science. They apply to all Data Science PhD candidates at the Faculty of Science.
2. Detailed information on the program is available on the website of the Institute for Computational Science (ICS) at www.ics.uzh.ch/en/studying/phd.html.

## II. Admission

1. An admission committee is formed from the members of the professorial staff involved in the program.
2. The following is required for admission:

- A Master's degree in science, mathematics or computer science from a Swiss university, ETHZ or EPFL, or an equivalent qualification. Basic knowledge of programming and statistics is also required. Specialist evaluations for the purpose of recognizing degrees not acquired at UZH, ETHZ, or EPFL are carried out by the admission committee on behalf of the head of the doctoral program. Successful attendance of specialist lectures may also be stipulated by the thesis supervisor as an additional requirement.
- A successful interview attended by at least three members of the admission committee.
- A positive decision by the thesis supervisor, which depends on the quality of the candidate's academic achievements, the impression he or she makes in the interview, and the available resources.


## III. Structure of the Doctoral Program

1. Curricular portion

The doctoral committee determines the precise form of the program on an individual basis for each PhD candidate. In doing so, the main consideration will be the specific environment of the research field, but a general education in data analysis and data modeling in sciences should also be ensured.

- PhD candidates must obtain basic, fundamental knowledge in the subject area of their research. This includes mandatory attendance of relevant lectures unless the candidates can provide evidence that they have already attended such lectures.
- During the entire period of the PhD , regular attendance of weekly research seminars is mandatory.
- At least 12 ECTS credits must be acquired in total.
- ECTS credits can also be earned through active participation in conferences (poster sessions or lectures) or other activities relevant to the PhD.
- The following Faculty of Science courses are offered to all PhD candidates:

| Module/course | Typical ECTS <br> credits per <br> course |
| :--- | :---: |
| Regular courses relating to data science, data analysis, machine <br> learning, statistics, programming and PhD-specific topics. | $2-6$ |
| Block courses of one to four weeks' duration are held twice a year (in <br> the spring and fall). The goal is to provide an introduction to various <br> methods of data analysis, training in software development, and <br> insights into the research conducted by the various groups. | $2-6$ |
| Academia Industry Modeling (AIM) week: <br> Research into applied problems of data analysis and computer-based <br> science with industry partners. The program is coordinated by <br> members of the professorial staff. | 2 |
| Journal clubs are run by various departments that take part in the <br> doctoral program. ECTS credits are awarded to students who have <br> regularly given presentations. | 1 |
| Total | At least 12 |

2. Involvement in teaching

PhD candidates must take on at least one teaching assistant role per semester throughout their doctoral studies. These roles are allotted by the organizer of the practical courses ("Übungen") and practical training at the department in which the PhD candidate is employed. One teaching assistant role corresponds on average to approximately six hours of working time per week (including preparation and follow-up) during the lecture period. In the final semester before they hand in their thesis, PhD candidates can be exempted from teaching work if teaching operations permit. The number of hours of teaching work carried out must not exceed 420 ( $\$ 10$ of the Employment Ordinance (PVO)).
3. Doctoral agreement

The template provided must be used for the doctoral agreement. It can be obtained from the coordinator of the doctoral program.
4. Doctoral committee

The doctoral committee must include at least one regular member of the professorial staff. The doctoral committee is given an annual update on the progress of the PhD candidate's work and amends the doctoral agreement if necessary.

## IV. Doctoral degree

1. At the same time as registering for a PhD defense with the Office of Student Affairs at the Faculty of Science, candidates must submit their thesis in electronic form to the coordination office for the doctoral program.
2. Cumulative PhD theses

Cumulative PhD theses must contain both an introductory chapter and a summary of the conclusions. The PhD candidate's own contributions must be clearly visible in detail.
3. Group of recipients

In addition to the thesis supervisor, the group of recipients must include at least four further members of the professorial staff. If it makes sense from a content point of view, other professors with the right to confer PhDs at the Faculty of Science or professors affiliated with the Faculty of Science will also be brought in. Circulation will be organized by the coordinator of the doctoral program.
4. Colloquium

The colloquium consists of a 45-minute public lecture followed by a 45-minute, non-public interview about scientific topics from the thesis's field of research. The chair of the doctoral committee invites the members of the doctoral committee and the group of recipients to attend the interview. The experts and the direct supervisors are also invited to the interview, even if they are not members of either the Faculty or the doctoral committee. § 19 paragraph 4 of the Regulations for Obtaining a Doctoral Degree continues to apply.

