Regulations for the Doctoral Program Data Science

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I. General Information

1. These regulations are based on the Ordinance for Obtaining a Doctoral Degree and the Doctoral Program Regulations Part A at MNF. They apply for all PhD students in the Data Science program at the MNF. ⌊SEP⌋

2. Detailed information on the program can be found on the Institute for Computational Science's website at www.ics.uzh.ch/en/studying/phd.html.

II. Admission

1. An admissions committee is formed from the faculty members participating in the program.

2. The requirements for admission are:

   − A master's degree in Physics, Mathematics or Computational Science at a Swiss University, ETHZ, EPFL or an equivalent degree is required. Furthermore basic knowledge of programming and statistics is required. The Admissions Committee, in the name of the director of the doctoral program is responsible for the academic evaluation of master's degrees earned at institutes other than UZH, ETHZ or EPFL. In addition, the research group leader may request the completion of specific courses as an additional requirement.

   − An education is considered equivalent if it is a successfully completed Master's degree program of 1.5 to 2 years with a significant portion of Data Science topics: (i) theoretical lectures and courses amounting to at least 60 ECTS points and (ii) a Master's thesis with a minimum duration of 3 months and a focus on independent research.

   − A successful interview.

   − A positive decision by the supervisor of the dissertation, which depends on the quality of the academic achievements, the impression in the interview, and the available resources.

III. Structure of the Doctoral Program

1. Curricular Portion
   The doctoral committee determines each PhD student's curriculum individually. Their curriculum should focus on students' specific area of research, while also ensuring a solid general education in data analysis and data modelling in the natural sciences.

   − Doctoral students are required to acquire fundamental knowledge in the field of their research. This includes compulsory participation in relevant lectures, unless such participation has already been proven.

   − At least 12 ECTS credits must be earned in total. ECTS credits can also be earned through active participation in conferences (poster or oral presentation) or other

activities relevant to the PhD, such as regular presentations of Progress Reports and in the Journal Club offered in the doctoral program Data Science.
- The following MNF courses are offered for all doctoral students:

Module/Event	Typical ECTS
Regular courses related to data science, data analysis, machine learning, statistics, programming, and topics relevant for doctoral students.	2-6
Block courses of 1 to 4 weeks take place twice a year (spring and autumn). The goal is to introduce different methods of data analysis, training in software development, and insight into the research of the different research groups.	2-6
Academia Industry Modeling (AIM) Week: Research in applied problems of data analysis and computer-aided science with industrial partners. The program is coordinated by faculty members.	2
Journal clubs and Progress Reports are conducted by various institutes participating in the doctoral program. ECTS credits are awarded to students who have made presentations on a regular basis.	1
Total	mind. 12

2. Teaching Assistance
   Doctoral students must complete at least a teaching load of 100 hours in regular MNF courses (i.e. courses listed in the UZH course catalog) related to Data Science throughout the duration of their doctoral studies. The practical trainings coordinator at the Institute where a student is employed is responsible for the assignments. The teaching load every semester is 6 work hours on average per week (incl. preparation and follow-up) during the lecture period. During the last semester before submitting their dissertation, PhD students can ask to be dispensed from their teaching requirements if the teaching operation allows it. The maximum time for teaching assistance may not exceed 420 hours (§10 PVO).

3. Doctoral Agreement
   The doctoral agreement should be completed using the template obtainable from the program coordinator or on the website of the program.

4. Doctoral Committee
   At least one permanent faculty member must be part of the doctoral committee. The doctoral committee should be annually informed on the project's progress and should, if necessary, modify the doctoral agreement.

IV. Doctoral Degree

1. When students apply for their PhD defense at the MNF Student Affairs Office, they should also submit a copy of their dissertation to the program coordinator.

2. Cumulative Dissertations

Cumulative dissertations must contain both an introductory chapter and a summary of the conclusions. The doctoral student's own contributions must be clearly visible in detail.

3. Circulation Round
    The circulation round consists of at least four faculty members of the program in addition to the supervisor. If called for by the subject matter, other professors with the right to confer PhDs at MNF or professors affiliated with the MNF are included on a case-by-case basis. The circulation round is organized by the coordinator of the doctoral program.

4. Colloquium
    The colloquium involves a 45 minutes lecture, which is open to the public, and a subsequent 45 minute closed disputation on questions in the research area of the dissertation. The head of the PhD commission invites the members of the PhD commission and the circulation round to participate in the disputation. The reviewers and the direct supervisors of the doctoral candidate will also be invited to take part in the disputation, even if they do not belong to the faculty or the PhD commission. Furthermore, §19, 4 of the Doctoral Regulations applies.