



# Regulations for the Doctoral Program Computational Science

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## I. General Information

1. These regulations are based on the MNF Ordinance for the Obtaining a Doctoral Degree and the MNF Doctoral Program Regulations, Part A. They apply for all PhD students in Computational Sciences at MNF.
2. Details on the program can be found on the program's website ([www.zhcs.ch](http://www.zhcs.ch)).

## II. Admission

1. The admission committee consists of the faculty members participating in the program.
2. The admission requirements are:
  - A master's degree from a Swiss university, ETHZ or EPFL or an equivalent degree. The head of the doctoral program evaluates which master's degrees from outside the UZH, ETHZ and EPFL, should be recognized. Students may be required to successfully attend specialized courses by the group leader as an additional requirement.
  - A successfully completed interview, attended by at least 3 members of the admissions committee.
  - A positive decision on the part of a research group leader in Computational Science based upon open positions.

## III. Structure of the Doctoral Program

1. Curricular Portion
  - The doctoral committee determines the each PhD student's coursework individually. The coursework should focus on the student's specific area of research, but also encompass a general education in computational sciences.
  - 12 ECTS Credits must be earned in total.
  - The following CSZ courses are offered for all PhD students:

Module/Courses	ECTS Credits
Block courses Block courses last 1 to 4 weeks and take place twice a year (Spring and Fall). The goal is to introduce students to various computational methods, train them in software development and provide them with insight into the research being conducted by different groups.	2-6

Academia Industry Modelling (AIM) weeks Research on practical problems in computational science with industrial partners in groups. Faculty members coordinate the program.	2
Computational Science – Journal clubs Various institutes participating in the doctoral program conduct journal clubs. ECTS Credits are awarded to students who regularly hold presentations.	1
Laboratory exchanges All students must work in a different research group for 1-2 month at one point during their doctoral studies. During this time they will participate in this group's research project.	1
Total	min. 12

2. Teaching Assistance  
 Doctoral students must participate in teaching every semester of their doctoral studies. The organizer of practical trainings and courses at the Institute for Computational Science or at the institute of the respective group leader makes the assignments. The teaching load every semester averages 6 work hours per week during the lecture period. During the last semester before submitting their dissertation, PhD students can ask to be exempt from their teaching requirement. External PhD students (who have members of the doctoral program as advisors, but are not hired there) generally only complete half the teaching load. The total number of teaching hours may not be higher than 420 hours (§10 PVO).
3. Doctoral Agreement  
 The doctoral agreement should be completed using the template obtainable from the program coordinators.
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 two copies of their dissertation to the doctoral program's coordinator for circulation.
2. Circulation Round  
 The circulation round consists of at least four of the PhD program's faculty members in addition to the directly responsible faculty member. Other faculty members (Physical Chemistry, Astrophysics, etc.) may be included if called for by the subject matter. The coordinator organizes the circulation.
3. Colloquium  
 The colloquium involves a 30 minutes lecture open to the public and a subsequent 30 minutes closed disputation in the dissertation's subject area. The committee members as well as one additional faculty member must be present at the disputation. The reviewers and the direct PhD advisor will be invited to the disputation, even if they are neither members of the faculty nor the doctoral committee.