# Regulations for doctoral studies at the Institute for Atmospheric and Climate Science (IAC)<sup>1</sup>

This document is provided to all doctoral students at the beginning of the doctorate by the respective secretariat. It is also available at https://wiki.iac.ethz.ch/Intranet/IntraPhd.

The regulations for doctoral studies at the IAC follow those of the following ETH regulations:

- Ordinance on the Doctorate (in German "Doktoratsverordnung"<sup>2</sup>, abbreviated DV in the following),
- Rector's Implementation Provisions (in German "Ausführungsbestimmungen der Rektorin zur Doktoratsverordnung"<sup>3</sup>, abbreviated AB in the following),
- And the detailed stipulations regarding the doctorate from D-USYS (in German "Detailbestimmungen zum Doktorat"<sup>4</sup>).

Additional information is available at:

https://www.ethz.ch/de/doktorat.html and https://www.usys.ethz.ch/doktorat.html.

These regulations are issued by the institute board ("Institutsleitung", abbreviated IL in the following).

## 1 Overview

## 1.1 Validity

These regulations are valid for all doctoral students holding a position at the Institute for Atmospheric and Climate Science (IAC). Except for Sections 1.9 and 1.10 the regulations also apply to external doctoral students with a main supervisor at IAC.

# 1.2 Supervisor

The professor designated to have primary responsibility for the doctoral student is referred to as the supervisor. He/she guarantees a continuous supervision of the doctoral student. The doctoral student and the supervisor define the project together. Apart from the main supervisor, a 2<sup>nd</sup> advisor must be appointed (before the submission of the doctoral plan), using the specific form<sup>5</sup>. This advisor guides and supports the doctoral student in professional matters. This 2<sup>nd</sup> advisor must be selected in mutual agreement by the supervisor and the doctoral student (DV Art. 28).

## 1.3 Doctoral Plan

The doctoral student is responsible for the doctoral plan as defined in the overarching ETH regulations (DV Art. 11). He or she writes and revises the research plan in consultation with the supervisor during the

<sup>&</sup>lt;sup>1</sup> Version of 12.6.2022, replaces former version of 17.9.2015

<sup>&</sup>lt;sup>2</sup> SR 414.133.1 or in English RSETHZ 340.31en, of 23.11.2021

<sup>&</sup>lt;sup>3</sup> RSETHZ 340.311 or in English RSETHZ 340.311en, of 23.11.2021

<sup>&</sup>lt;sup>4</sup> Detailbestimmungen, of 27.1.2022

<sup>&</sup>lt;sup>5</sup> <u>https://ethz.ch/content/dam/ethz/associates/students/doktorat/files/Registration%20Form%20Second%20Advisor.pdf</u>

first year of the project. The doctoral plan should also include considerations of the risks of failure within the project. The doctoral plan should further also contain brief information on teaching and infrastructural obligations on the order of 10 working days in the context of the IAC Doc Job tasks (see Section 1.10).

## 1.4 Duration

At IAC the default duration of a doctorate is three years. The doctorate ends with the pre-exam submission of the thesis to the doctoral administration of ETH. If the doctorate extends beyond 3 years, the IL needs to be informed with an explanatory one-page report.

The doctoral student's position may be terminated in cases of mutual agreement, or after 18 months if he or she fails the aptitude colloquium ( $2^{nd}$  doctoral interview) (see DV Art. 14 and Section 2).

## 1.5 Doctoral Committee and Doctoral Interviews

A doctoral committee (aptitude committee according to DV Art. 16) overviews the doctoral student's progress regarding scientific advance and organizational issues. The composition and duties of the committee are as follows:

- a. The committee includes a minimum of three persons: the supervising professor, the 2<sup>nd</sup> advisor and the chair of the committee, optionally supported by additional supervisors. The chair of the committee must be a member of an ETH professors' conference.
- b. The members of the doctoral committee are approved by the IL and the D-USYS Doktoratsauss-chuss (D-USYS Regulations Art. 3).
- c. The committee holds two doctoral interviews (see Section 2). The first interview takes place six months after the starting date of the doctorate, while the second interview needs to be scheduled no longer than 12 months after the start of the doctorate (DV Art. 12).
- d. Based on the second doctoral interview (corresponding to the aptitude colloquium DV Art. 12), the committee decides on the continuation of the doctoral studies past 18 months.

# 1.6 Progress Meetings and Reports (DV Art. 29)

Each year a written report on the progress of the research project including results and significant changes from the research project, described in the doctoral plan, needs to be written by the doctoral student (using a template available on the USYS doctoral website) and be sent to the supervisor and 2<sup>nd</sup> advisor (D-USYS Regulations Art. 8).

Every year a status conversation (in German "Standortgespräch") between the doctoral student and the supervisor needs to take place about the progress of the research project, the doctoral studies, the work situation in the research group, as well as development opportunities (DV Art. 29).

# 1.7 Doctoral Examination

The examination process follows the guidelines as given by the Department<sup>6</sup> and by ETH Zurich (DV Art. 39-45).

## 1.8 Disagreement

In case of disagreement, the doctoral student, supervisor, and committee members have, at any time, the right to request a discussion with the IL. Alternatively, or in addition, IAC internal trusted intermediaries

<sup>&</sup>lt;sup>6</sup> <u>USYS Guidelines, Section 5</u>

can be contacted and asked to help finding a suitable mediator for the case. Also available are the official Ombudspersons and Confidants at ETH<sup>7</sup>.

# 1.9 Salary and Working Time

- a. The doctoral students employed at IAC receive a 100 % salary corresponding to ETH salary class 1 during the first 18 months, and ETH salary class 2 during the subsequent 18 months.
- b. Potential extension of funding after the 36-month period will be in salary class 2 as well.
- c. The first 2 contracts will be issued for 18 months each.
- d. Upon request and with the agreement of the supervisor and the IL, the working time and associated salary can be reduced to 80-95%. The default duration of the thesis will then be adjusted accordingly.
- e. Exceptions are subject to an agreement with the supervisor and the IL.

## 1.10 Doc Jobs

- a. The duties arising in teaching and infrastructure at the IAC ("Doc Jobs") are assigned amongst the doctoral students.
- b. Depending on the Doc Job, they are assigned by the person responsible for the Doc Job in consultation with the doctoral student, or during a Doc Job bazaar. The attendance at the Doc Job bazaar is compulsory. Doctoral students absent without a valid excuse may be assigned Doc Jobs by the bazaar administration. Excuses are to be directed to the bazaar administration.
- c. According to the workload of each Doc Job, the doctoral students receive a certain amount of Doc Job days for their work.
- d. Every doctoral student should reach 50-55 Doc Job days during his doctoral studies. The minimum of Doc Job days for every doctoral student is 45. The bazaar administration adjusts these numbers based on the number of doctoral students and Doc Jobs.
- e. The integrated workload during the whole doctoral studies must not exceed that specified in the regulations of the department (67.5 days throughout the 3-year period).

# 1.11 Course Work

The doctoral students are expected to attend courses of the institute, ETH Zurich and/or other research institutions to supplement their studies. At least 12 ECTS credits must be obtained during the doctorate (see DV Art. 36 and D-USYS Regulations Art. 9). One ECTS needs to be on the topic of good scientific practice and ethics (see AB Art. 10.2). For special courses, the costs of lectures may be partly or fully reimbursed as decided by the supervisor. The IAC supports the doctoral students to take German or English courses (e.g., in scientific writing), and in general the professor's budget contributes a maximum of 50% of the costs of two courses.

## 1.12 Colloquium

The doctoral students are expected to attend the IAC colloquium to extend and deepen their knowledge in atmospheric and climate science.

# 1.13 Supervision of Bachelor and Master Theses

Doctoral students may supervise bachelor and master theses on a voluntary basis.

<sup>&</sup>lt;sup>7</sup> https://ethz.ch/en/the-eth-zurich/organisation/ombudspersons-and-trusted-intermediaries.html

### 1.14 Vacations

The vacations of the doctoral students are to be chosen such that they do not conflict with teaching and research duties.

The doctoral students can be granted an unpaid leave of absence, subject to an agreement with the supervisor.

### 2 Details: Doctoral Interviews

This Section extends Section 1.5.

### 2.1 First interview:

The first interview takes place 6 months after the beginning of the doctoral studies and is non-public. The doctoral students are to demonstrate their competence in:

- a. Formulating a scientific question: What is the problem, the goal? Which answers are expected to be found?
- b. Judging the value of their research project: What is new/ unique in the targeted investigations? What is the significance for the field?
- c. Placing the planned research within the existing scientific literature.

# 2.2 Second interview (aptitude colloquium):

The second interview takes place at the latest 12 months after the beginning of the doctoral studies. The second interview is public and is held as a seminar. The doctoral students:

- a. specify and define more precisely the questions discussed in the first interview,
- b. present first results.

## 2.3 Time Schedule

In both interviews, an (updated) time schedule for the doctoral project must be presented.

# 2.4 Doctoral Plan

The doctoral committee should receive a copy of the doctoral plan for the two interviews. The doctoral plan should be distributed to the doctoral committee one week prior to the first interview. The committee discusses changes to the research plan, to be integrated after the first interview by the doctoral student in agreement with the supervisor. Until 15 days prior to the aptitude colloquium, the doctoral plan must be submitted to the D-USYS Doctoral Administration<sup>8</sup>, using the D-USYS title page<sup>9</sup>.

## 2.5 Formal Course of the Interviews

- a. Presentation of the project by the doctoral student (20 min).
- b. Discussion between the doctoral committee and the doctoral student (20 min).
- c. Judgment of the project by the committee in absence of the doctoral student and the audience (10 min).

<sup>&</sup>lt;sup>8</sup> USYS Guidelines, Art. 4.2

<sup>&</sup>lt;sup>9</sup> https://ethz.ch/content/dam/ethz/special-interest/usys/department/documents/doktorat/Doctoral%20plan\_title%20page.pdf

d. Informal feedback of the committee to the doctoral student (and vice versa) on assessment, potential problems, and schedule of the doctoral studies, etc. (10 min).

## 2.6 Decision

The doctoral committee decides if the applicant has passed or failed the aptitude colloquium according to DV Art. 14 and reports in written form to the D-USYS Doktoratsausschuss.

# 2.7 Organization

- a. The institute is responsible for a database documenting the names and dates (entry, interviews) of the doctoral students. The supervisor ensures that new doctoral students are entered.
- b. Organization of the doctoral interviews: The doctoral students organize the doctoral interviews (date/time, room, announcement of the aptitude colloquium as a seminar).

# 3 Research Integrity and Good Scientific Practice

The doctoral students and supervisors are responsible for working along the ETH guidelines for research integrity and good scientific practice<sup>10</sup>. This includes issues of plagiarism, the proper treatment of scientific data, and principles of publications.

# 4 Coming into Force

These doctoral regulations become effective at 12.6.2022 for all doctoral students who do their doctoral studies under the new regulations. For the other students, the following transition regulations apply.

# 5 Details: Transition Regulations

For doctoral students who started their doctoral studies under the old regulations, the following transition regulations apply:

- A 2<sup>nd</sup> advisor must be appointed. The name of the 2<sup>nd</sup> advisor must be reported before 30.6.2022 (if the doctoral student has been admitted in 2021) or before 31.12.2022 (otherwise).
- The aptitude colloquium replaces the former 2<sup>nd</sup> doctoral interview. For this colloquium, a chairperson must be nominated. In our case, the external member of the former doctoral committee can take the role of the chairperson, provided he/she is a member of an ETH professors' conference.
- Each year a progress report, including results and significant changes from the doctoral plan, should be written by the doctoral student (using a template that will be made available on the USYS doctoral website).
- Every year a status conversation (Standortgespräch) between the doctoral student and the supervisor should take place about the progress of the research project.
- For all doctoral examinations after 1.3.2022, the new format of the doctoral examination applies (e.g., the examination lasts for at least 1 h 20 min).

 $<sup>^{10} \, \</sup>underline{\text{https://ethz.ch/content/dam/ethz/main/research/Ethische Fragen/documents/Broschure.pdf,} \, \underline{\text{https://rechts-sammlung.sp.ethz.ch/Dokumente/414en.pdf}}$