# **Appendix**

To the Programme Regulations 2013 of the Master's degree programme in Environmental Sciences

01.11.2017 (Version: 29.09.2023)

Applies to students who commence or re-enter the degree programme in Autumn Semester 2024 or later. For those entering the programme before Autumn Semester 2024 the stipulations of the previous Appendix apply.<sup>1</sup>

This English translation is for information purposes only. The German version is the legally binding document.

This Appendix sets out the prerequisites for and further details regarding admission to the Master's degree programme in Environmental Sciences. It supplements the stipulations of the Admission Regulations of ETH Zurich<sup>2</sup> and the Directive on Admission to Master's degree programmes<sup>3</sup>.

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<sup>&</sup>lt;sup>1</sup> For entries before the autumn semester (HS) 2024, the regulations of the following Appendixes apply:

<sup>-</sup> Entry in the period HS 2016 up to and including FS 2018: Appendix of 31.08.2010, Version 01.11.2015;

<sup>-</sup> Entry in the period HS 2018 up to and including FS 2020: Appendix of 01.11.2017, Version 01.11.2017;

Entry in the period HS 2020 up to and including FS 2024: Appendix of 01.11.2017, Version 01.11.2019.

<sup>&</sup>lt;sup>2</sup> SR **414.131.52** 

<sup>3</sup> www.directives.ethz.ch

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### 1 Profile of requirements

For admission to the Master's degree programme in Environmental Sciences (subsequently 'the degree programme') all of the following prerequisites must be satisfied.

### 1.1 Degree qualifications

<sup>1</sup> For admission to the degree programme one of the following is required:

- a. A university Bachelor's degree in Environmental Sciences or Environmental Engineering comprising at least 180 ECTS credits or an equivalent university degree in Environmental Sciences or Environmental Engineering
- b. A Bachelor's degree in Environmental Engineering, Forestry or Energy and Environmental Technology from a Swiss university of applied sciences<sup>4</sup> comprising at least 180 ECTS credits
- c. A university Bachelor's degree comprising at least 180 ECTS credits or an equivalent university qualification in a discipline other than Environmental Sciences or Environmental Engineering which also with regard to any additional academic requirements within the given framework satisfies the academic prerequisites.
- <sup>2</sup> A Bachelor's degree qualifies its holder for admission to an ETH Master's degree programme only if it also qualifies said holder to enter, without additional requirements, the desired Master's degree programme within the university system where the Bachelor's degree was acquired. The Rector may also demand proof of this, determining whether such proof must come from the home university or from another university in the country where the Bachelor's degree was acquired.

### 1.2 Academic prerequisites

<sup>1</sup> Attendance of the Master's degree programme in Environmental Sciences presupposes basic knowledge and skills in the areas of mathematics, the fundamentals of natural sciences, environmental systems, and humanities and the social sciences which must in content, scope, quality and skills level be equivalent to those covered at ETH Zurich (discipline requirements profile).

<sup>&</sup>lt;sup>4</sup> A Diploma from a Swiss university of applied sciences is considered equivalent to a Bachelor's degree in the same discipline. A Bachelor's degree from a German or Austrian university of applied sciences is considered equivalent to a Bachelor's degree from a Swiss university of applied sciences.

- <sup>2</sup> The **discipline requirements profile** comprises **64 ECTS credits** in total and is based on knowledge and skills covered in the ETH Bachelor's degree programme in Environmental Sciences, including the corresponding methodological scientific thinking skills.
- <sup>3</sup> If a candidate does not completely satisfy the academic prerequisites, admission may be granted subject to the acquisition of the missing knowledge and skills in the form of additional requirements (admission with additional requirements). Completion of additional requirements is expressed in ECTS credits.
- <sup>4</sup> Admission to the degree programme is not possible if the academic gaps in the candidate's background are too extensive.
- <sup>5</sup> The discipline requirements profile is structured in two parts set out below. Details regarding the content of the corresponding course units are published in the ETH Course Catalogue (www.courses.ethz.ch).

### Part 1: Basic knowledge (52 ECTS credits)

Part 1 comprises 52 ECTS credits and covers basic knowledge and skills in the disciplines of mathematics, the fundamentals of natural sciences, environmental systems, humanities and the social sciences. The substance of the following course units is required:

## Mathematics (14 ECTS credits)

- Analysis I & II and Lineare [Linear] Algebra
- Systemanalyse [Systems Analysis]
- Statistik [Statistics]

### The fundamentals of natural sciences / environmental systems (32 ECTS credits)

- Allgemeine Biologie [General Biology] I & II
- Evolutionsbiologie [Evolutionary Biology]
- Mikrobiologie [Microbiology]
- Ökologie [Ecology]
- Chemie [Chemistry] I & II
- Physik [Physics] I & II
- Umweltsysteme [Environmental Systems] I & II
- Atmosphäre [Atmosphere]
- Pedosphäre [Pedosphere]
- Hydrosphäre [Hydrosphere]

### Humanities and the social sciences (6 ECTS credits)

- Ökonomie [Economics]
- Umweltrecht [Environmental Law]
- Umweltpolitik der Schweiz [Environmental Policy in Switzerland]

- Methoden des Argumentierens in Wissenschaft und Ethik [Methods of Argument in Science and Ethics]
- Methoden der empirischen Sozialforschung [Methods of Empirical Social Research]

### Part 2: Specialisation-specific knowledge (12 ECTS credits)

Part 2 comprises 12 ECTS credits and covers knowledge and skills which the candidate requires for the selected specialisation ('major').

Major: Atmosphere and Climate

- Atmospheric physics
- Atmospheric chemistry
- Meteorology
- Climate
- Numerical modelling

Major: Biogeochemistry and Pollutant Dynamics

- Biogeochemistry
- Global cycles
- Environmental chemistry
- Environmental physics
- Environmental microbiology
- Ecotoxicology

Major: Ecology and Evolution

- Ecology
- Evolution
- Genetics
- Infectious diseases

Major: Forest and Landscape Management

- Botanical species knowledge
- Forest and landscape ecology
- Spatial information systems (GIS)
- Planning and use of forest and landscape
- Environmental law, politics and economics

Major: Environmental Systems and Policy

- Social sciences
- (Statistical) modelling
- Deploying policy analysis

Major: Human Health, Nutrition and Environment

- Human anatomy and physiology
- Food sciences
- Environmental chemistry and ecotoxicology
- Immunology
- Microbiology
- Statistical application

### 1.3 Language prerequisites

<sup>1</sup> The teaching language of the degree programme is English.

- <sup>2</sup> For admission to the degree programme, proof of sufficient knowledge of English (Level C1<sup>5</sup>) must be provided.
- <sup>3</sup> Applicants to the degree programme who hold a Bachelor's degree from a university of applied sciences must, because of the pertaining additional requirements for admission, also supply proof of sufficient knowledge of German (Level C1).
- <sup>4</sup> The required language certificates must be submitted by the application deadline. The ETH Zurich publishes a list of the language certificates accepted.

# 2 Specific stipulations for admission and entering the degree programme

# 2.1 Bachelor's degree in Environmental Sciences or Environmental Engineering from ETH Zurich

- <sup>1</sup> The following persons are guaranteed unconditional admission to the degree programme:
  - a. Holders of a Bachelor's degree in Environmental Sciences or Environmental Engineering from ETH Zurich
  - b. Persons enrolled in one of these Bachelor's degree programmes at ETH Zurich
- <sup>2</sup> Students of the Bachelor's degree programmes in Environmental Sciences or Environmental Engineering may enrol directly in the degree programme via www.mystudies.ethz.ch. The admission procedure outlined in section 3 is dispensed with. Details:
  - a. The normal ETH Zurich enrolment dates and deadlines apply.
  - b. Students of the Bachelor's degree programme in **Environmental Sciences** may enrol as soon as only 30 ECTS credits remain to be acquired for the Bachelor's degree and if all of the ECTS credits required for the Bachelor's degree in core subjects I and II have been acquired.

<sup>&</sup>lt;sup>5</sup> The required language level is measured according to the Common European Framework of Reference for Languages scale (CEFR).

- c. Students of the Bachelor's degree programme in **Environmental Engineering** may enrol as soon as only that number of ECTS credits which would allow them to enrol in the consecutive Master's degree programme in Environmental Engineering remain to be acquired.
- d. Admission is provisional until the Bachelor's degree is issued. Admission will be revoked if the Bachelor's degree is not or cannot be issued.

# 2.2 Bachelor's degree in Sciences et Ingénierie de l'Environnement from EPF Lausanne

- <sup>1</sup> Holders of a Bachelor's degree in Sciences et Ingénierie de l'Environnement from EPF Lausanne are unconditionally admitted to the degree programme.
- <sup>2</sup> Admission is subject to fulfilment of the language prerequisites.
- <sup>3</sup> Candidates who have been granted admission may only enter the Master's degree programme when they have completed the preceding (Bachelor's) degree programme.

# 2.3 Bachelor's degree in Environmental Sciences or Environmental Engineering from another Swiss university

- <sup>1</sup> Holders of a Bachelor's degree or the equivalent in Environmental Sciences or Environmental Engineering from another Swiss university may be admitted to the degree programme.
- <sup>2</sup> Admission is subject to fulfilment of the language prerequisites.
- <sup>3</sup> Admission may be subject to additional requirements.
- <sup>4</sup> Candidates who have been granted admission may only enter the Master's degree programme when they have completed the preceding (Bachelor's) degree programme.

# 2.4 Bachelor's degree in Environmental Sciences or Environmental Engineering from a university outside Switzerland

- <sup>1</sup> Persons holding a Bachelor's degree or the equivalent in Environmental Sciences or Environmental Engineering from a university outside Switzerland must satisfy the academic and language prerequisites to be admitted to the degree programme.
- <sup>2</sup> Admission may be subject to additional requirements.
- <sup>3</sup> Admission is not possible if
  - a. the language prerequisites are not satisfied;
  - b. the content, scope, quality and skills level of the degree are not equivalent to those at ETH Zurich;

- c. the number of additional ECTS credits required to satisfy the academic prerequisites exceeds
  - 1. 30 ECTS credits in total; or
  - 2. 15 ECTS credits from Part 1 of the academic prerequisites.

# 2.5 Bachelor's degree in Environmental Engineering, Forestry or Energy and Environmental Technology from a Swiss university of applied sciences

<sup>1</sup> Holders of a Bachelor's degree in Environmental Engineering, Forestry or Energy and Environmental Technology from a Swiss university of applied sciences may be admitted, if they can satisfy all the following prerequisites

- a. the academic requirements are satisfied within the given framework
- b. the language prerequisites are satisfied
- c. the final Bachelor's degree grade is at least a 5 (according to the Swiss grading system, which involves grades from 1 [lowest] to 6 [highest])<sup>6</sup>
- <sup>2</sup> Admission is always subject to the compensation of missing academic and methodological knowledge with additional study achievements comprising at least 40 ECTS credits.
- <sup>3</sup> The additional requirements to be fulfilled by candidates are structured in two parts, as follows:

#### Additional requirements Part 1

To fulfil the additional requirements of Part 1, ECTS credits must be acquired in the areas of mathematics and natural sciences as set out below. The individual course units belong to the curriculum of the ETH Zurich Bachelor's degree programme in Environmental Sciences. Details regarding their content are published in the Course Catalogue (www.courses.ethz.ch).

- Mathematik [Mathematics] I and II
- Chemie [Chemistry] I and II
- Biologie [Biology] I–III, Evolutionsbiologie [Evolutionary Biology]
- Mikrobiologie [Microbiology]
- Physik [Physics] I and II

#### Additional requirements Part 2

To fulfil additional requirements of Part 2, candidates may be required to build up knowledge necessary for the selected specialisation ('major'). The required knowledge is determined by the responsible study advisor on behalf of the admissions committee.

<sup>&</sup>lt;sup>4</sup> Candidates who have been granted admission may only enter the Master's degree programme when they have completed the preceding (Bachelor's) degree programme.

<sup>&</sup>lt;sup>6</sup> The method of computation of the final grade is stipulated in the Directive on Admission to Master's Degree Programmes (www.directives.ethz.ch).

- <sup>4</sup> Admission is not possible if any of the following apply
  - a. the language or performance prerequisites are not satisfied
  - b. the number of additional ECTS credits required to fulfil the academic prerequisites exceeds 60

### 2.6 University Bachelor's degree in another discipline

- <sup>1</sup> If they can satisfy the academic and language prerequisites within the given framework, and if they showed very good academic performance during their Bachelor's degree studies, the following persons may also be admitted to the Master's degree programme:
  - a. Holders of a university Bachelor's degree or the equivalent in a discipline other than Environmental Sciences or Environmental Engineering
  - b. Persons enrolled at ETH Zurich in a Bachelor's degree programme other than Environmental Sciences or Environmental Engineering.
- <sup>2</sup> Admission may be subject to additional requirements.
- <sup>3</sup> Admission is not possible if
  - a. the language or performance prerequisites are not satisfied;
  - b. the content, scope, quality and skills level of the degree are not equivalent to those at ETH Zurich;
  - the number of additional ECTS credits required to satisfy the academic prerequisites exceeds
    - 1. 30 ECTS credits in total; or
    - 2. 15 ECTS credits from Part 1 of the academic prerequisites.
- <sup>4</sup> Students of an ETH Zurich Bachelor's degree programme (other than Environmental Sciences or Environmental Engineering) who have been granted admission are subject to the following:
  - a. The normal ETH Zurich enrolment dates and deadlines apply.
  - b. They may enrol in the Master's degree programme as soon as they have acquired that number of ECTS credits which would qualify them to enrol in the Master's degree programme consecutive to the original subject<sup>7</sup>.
  - c. Admission is provisional until the Bachelor's degree is issued. Admission will be revoked if the Bachelor's degree is not or cannot be issued.
- <sup>5</sup> All other candidates who have been granted admission may only enter the Master's degree programme when they have completed the preceding (Bachelor's) degree programme.

<sup>&</sup>lt;sup>5</sup> Candidates who have been granted admission may only enter the Master's degree programme when they have completed the preceding (Bachelor's) degree programme.

<sup>&</sup>lt;sup>7</sup> The permitted number of pending ECTS credits is set out in the Programme Regulations of the respective Master's degree programme (e.g. BSc Physics > MSc Physics).

### 3 Application and admission procedure

- <sup>1</sup> All candidates with the exception of matriculated ETH Zurich students from the Bachelor's degree programmes Environmental Sciences and Environmental Engineering must submit an application for admission to the degree programme. The binding specifications for application, in particular the documents required and the dates/deadlines for submission, are published on the website of the ETH Zurich Admissions Office (www.admission.ethz.ch).
- <sup>2</sup> Application may be made even if the required preceding degree has not yet been issued.
- <sup>3</sup> Applications will not be considered if
  - a. they are submitted late or not in the correct form; or
  - b. the relevant fees are not paid.
- <sup>4</sup> The admissions committee of the degree programme determines how far the background of the candidate corresponds to the profile of requirements and submits an application for admission/rejection to the Director of Studies.
- <sup>5</sup> On the request of the Director of Studies the Rector makes the final decision regarding admission or rejection.
- <sup>6</sup> The candidate receives a written admissions decision which includes relevant information concerning any additional admission requirements.

## 4 Fulfilling additional admission requirements

#### 4.1 General regulations

- <sup>1</sup> Candidates who are admitted subject to the fulfilment of additional requirements must acquire the required additional knowledge and skills before or during the Master's degree programme via self-study or by attending classes. The corresponding individual performance assessments must take place by set deadlines.
- <sup>2</sup> If the candidate fails said performance assessments or does not respect the set deadlines she/he will be regarded as having failed the degree programme and will be excluded from it.
- <sup>3</sup> The deadlines and conditions for undertaking the performance assessments depend upon the background of the candidate.

### 4.2 University Bachelor's degree

<sup>1</sup> Candidates holding a university Bachelor's degree must undertake all of the performance assessments pertaining to the additional admission requirements by the end of the first year of the Master's degree programme at the latest. All additional requirements, including

any assessment repetitions, must be fulfilled within 18 months of the start of the Master's degree programme at the latest.

- <sup>2</sup> A pass grade in each individual performance assessment is required.
- <sup>3</sup> A failed performance assessment may only be repeated once.

### 4.3 Bachelor's degree from a Swiss university of applied sciences

- <sup>1</sup> Candidates holding a Bachelor's degree from a Swiss university of applied sciences must undertake all of the performance assessments pertaining to the additional admission requirements by the end of the first year of the Master's programme at the latest. All additional requirements, including any assessment repetitions, must be fulfilled within two years of the start of the Master's programme at the latest.
- <sup>2</sup> If the performance assessments involve session examinations, these may be grouped into examination blocks as long as they are offered in the same examination session. The examinations belonging to a block must always be undertaken within the same examination session.
- <sup>3</sup> A pass grade in an examination block is achieved if the average of the individual grades is at least a 4.
- <sup>4</sup> A failed performance assessment or a failed examination block may only be repeated once. Repeating an examination block entails repeating all of the performance assessments belonging to it.