

## Appendix

To the Programme Regulations 2006 of the  
Master's Degree Programme in Environmental Engineering

31 August 2010 (Version: 1 February 2012)

*Applies to students who commence the degree programme in Autumn Semester 2012 or later. For those entering the programme in Autumn Semester 2011 or Spring Semester 2012 the stipulations of the previous Appendix apply.*

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*This is an English translation only. The original 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 Engineering. It supplements the stipulations of the Admission Regulations of ETH Zurich and the Directive on Admission to Master's Degree Programmes.

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## 1 Profile of requirements

### *Policy*

For admission to the Master's degree programme in Environmental Engineering (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 Engineering comprising at least 180 ECTS<sup>(1)</sup> credits or an equivalent university degree in Environmental Engineering
- b. a university Bachelor's degree comprising at least 180 ECTS credits or an equivalent university degree which – provided that any pertaining additional requirements can be completed within the set framework – satisfies the academic prerequisites listed in 1.2.

<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 Engineering presupposes basic knowledge and skills in the disciplines Mathematics, Natural Sciences and Computer Science which are in content, scope and quality equivalent to those covered in the ETH Bachelor's degree programme in Environmental Engineering (discipline requirements profile).

<sup>2</sup> The **discipline requirements profile** set out below comprises **87 ECTS credits** in total and is based on knowledge and skills covered in the ETH Bachelor's degree programme in Environmental Engineering. This includes training in the relevant methodological scientific thinking.

<sup>3</sup> If an applicant does not completely satisfy the academic prerequisites, admission may be subject to the acquisition of the missing knowledge and skills in the form of additional requirements. Completion of additional requirements is expressed in credits. For further details, see Section 5 below.

<sup>4</sup> Admission is not possible if the applicant demonstrates academic gaps which are too extensive. For further details, see Sections 2.3 and 3.1 below.

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<sup>1</sup> ECTS: European Credit Transfer System. Credits describe the average time expended to achieve a learning goal. One credit corresponds to 25-30 hours of work.

## Discipline requirements profile

The discipline requirements profile is structured in two parts. The substance of the course units from the ETH Bachelor's degree programme in Environmental Engineering listed below is required. Information regarding the content of these course units is published in the course catalogue ([www.vvz.ethz.ch](http://www.vvz.ethz.ch)).

### Part 1: Basic knowledge (49 credits)

Part 1 comprises 49 ECTS credits and covers basic knowledge from the disciplines Mathematics, Physics, Chemistry and Computer Science

- Analysis I (7 credits)
- Analysis II (7 credits)
- Lineare Algebra und Numerische Mathematik [Linear Algebra and Numerical Analysis] (5 credits)
- Statistik und Wahrscheinlichkeitsrechnung [Statistics and Probability Theory] (5 credits)
- Physik [Physics] (7 credits)
- Chemie [Chemistry] I (4 credits)
- Chemie II (5 credits)
- Informatik [Informatics] I (5 credits)
- Informatik II (4 credits)

### Part 2: Subject-specific knowledge (38 credits)

Part 2 comprises 38 credits and covers knowledge primarily from the area of Environmental Engineering. It is subdivided into two areas.

- Hydraulik [Hydraulics] I (5 credits)
- Hydrologie [Hydrology] (3 credits)
- Biochemie [Biochemistry] (2 credits)
- Mikrobiologie [Microbiology] (2 credits)
- Wasserhaushalt GZ [Introduction to Water Resources Management] (6 credits)
- Siedlungswasserwirtschaft GZ [Introduction to Urban Water Management] (6 credits)
- Ökologische Systemanalyse [Ecological Systems Analysis] (6 credits)
- Groundwater I (4 credits)
- Abfalltechnik [Waste Management] (4 credits)

### 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>(2)</sup> must be provided.

<sup>3</sup> The pertaining language certificates must be submitted by the time of entry to the degree programme at the latest.

## 2 Specific stipulations for persons holding a Bachelor's degree in Environmental Engineering or Environmental Sciences

### 2.1 Bachelor's degree in Environmental Engineering or Environmental Sciences from ETH Zurich, or enrolled status in one of these two programmes

#### *Unconditional admission*

<sup>1</sup> Holders of a Bachelor's degree in Environmental Engineering or Environmental Sciences from ETH Zurich are unconditionally admitted to the degree programme.

#### *Entering the Master's degree programme*

<sup>2</sup> Students of the ETH Zurich Bachelor's degree programmes Environmental Engineering and Environmental Sciences should enrol in the degree programme directly via [www.mystudies.ethz.ch](http://www.mystudies.ethz.ch). The admission procedure outlined in Section 4 is dispensed with. The details are as follows:

<sup>3</sup> For all Bachelor's degree students already matriculated at ETH Zurich who progress to the ETH Master's degree programme, the following applies:

- a. The normal ETH enrolment dates and deadlines apply.
- b. Students of the Bachelor's degree programme in Environmental Engineering may enrol for the Master's degree programme when the number of credits still required to obtain the Bachelor's degree is down to 60 or less. Listed below are the course unit categories in the Bachelor's programme where missing credits are permitted, and their admissible number. (Credits required for the Bachelor's degree in all those course unit categories not listed must have already been acquired.)

<i>Category</i>	<i>Permitted number of missing credits</i>
Obligatory subjects	37 credits
Elective module	5 credits
Electives	4 credits

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<sup>2</sup> The required language level is measured according to the Common European Framework of Reference for Languages (EFR) scale: *The Common European Framework of Reference for Languages*, p. 23f. [www.coe.int/t/dg4/linguistic/Source/Framework\\_EN.pdf](http://www.coe.int/t/dg4/linguistic/Source/Framework_EN.pdf)

Compulsory electives GESS	4 credits
Bachelor's thesis	10 credits

- c. Students of the ETH Zurich Bachelor's degree programme in Environmental Sciences can enrol in the Master's degree programme, as soon as only 30 credits maximum towards the Bachelor's degree are pending; and they have acquired the full number of credits required for the Bachelor's degree in the course categories 'Basic Subjects' I and II.
- 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 Environmental Engineering from EPF Lausanne or from an IDEA-League partner university**

### *Unconditional admission*

<sup>1</sup> Unconditional admission to the degree programme is guaranteed for those holding a Bachelor's degree or equivalent qualification in Environmental Engineering from

- a. EPF Lausanne
- b. an IDEA-League partner university

<sup>2</sup> The language prerequisites listed in Section 1.3 still apply.

## **2.3 Bachelor's degree in Environmental Engineering from a university outside Switzerland**

<sup>1</sup> Students holding a Bachelor's degree or the equivalent in Environmental Engineering from a university outside Switzerland must, to be admitted to the Master's degree programme, satisfy the academic and language prerequisites set out in Section 1.

<sup>2</sup> Admission may be subject to additional requirements.

<sup>3</sup> Admission is not possible if

- a. the language prerequisites have not been satisfied
- b. the number of additional credits required to satisfy the academic prerequisites exceeds
  - 1) 30 credits in total, or
  - 2) 20 credits from Part 1 of the academic prerequisites (see Section 1.2).

### *Entering the Master's degree programme*

<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.

### **3 Specific stipulations for persons holding Bachelor's degrees in disciplines other than Environmental Engineering**

#### **3.1 University Bachelor's degree or enrolled status in an ETH Zurich Bachelor's degree programme**

<sup>1</sup> If they can satisfy the academic and language prerequisites listed in Section 1 above within the given framework and have also demonstrated very good study performance in the Bachelor's degree programme, 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 Engineering
- b. students enrolled in an ETH Bachelor's degree programme in a discipline other than 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 have not been satisfied
- b. the number of additional credits required to satisfy the academic prerequisites exceeds
  - 1) 30 credits in total, or
  - 2) 20 credits from Part 1 of the academic prerequisites.

#### **3.2 Entering the Master's degree programme**

<sup>1</sup> The following stipulations regarding entry to the Master's degree programme apply to students from an ETH Bachelor's degree programme (other than Environmental Engineering) who have been granted admission:

- a. They can enrol in the programme once they have acquired that number of credits which would qualify them to enrol in the Master's degree programme consecutive to their original subject.<sup>(3)</sup>
- b. The normal ETH enrolment dates and deadlines apply.
- 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>2</sup> All other candidates who have been granted admission may enter the Master's degree programme only when they have completed the preceding (Bachelor's) degree programme.

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<sup>3</sup> The permitted number of missing credits is set out in the Programme Regulations of the respective consecutive Master's degree programme (e.g., B.Sc. Physics > M.Sc. Physics).

## 4 Application and admission procedure

<sup>1</sup> All interested parties – with the exception of matriculated ETH Zurich students from the Bachelor's degree programmes Environmental Engineering and Environmental Sciences – must submit an application for admission to the degree programme. The 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](http://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 in improper form; and/or
- b. the pertaining 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> The Rector makes the final decision regarding admission/rejection.

<sup>6</sup> The candidate receives a written admissions decision which includes relevant information concerning any additional admission requirements.

## 5 Fulfilling additional admission requirements

### 5.1 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 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 he/she will be regarded as having failed the degree programme and will be excluded from it.

<sup>3</sup> The deadlines and conditions for undergoing said performance assessments depend on the type of additional admission requirements (see Section 5.2 below).

### 5.2 Performance assessment deadlines and conditions

<sup>1</sup> Candidates must undertake all of the performance assessments pertaining to the additional admission requirements in areas of 'basic knowledge' and 'subject-specific knowledge' (Section 1.2, Parts 1 and 2) 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 18 months of the start of the Master's 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 be repeated once.

<sup>4</sup> The student may only commence work on the Master's thesis when the additional requirements have been completely fulfilled.