

## Appendix

To the Programme Regulations 2007 of the  
Master's Degree Programme in Interdisciplinary Sciences

31 August 2010 (Version: 1 November 2011)

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

---

*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 Interdisciplinary Sciences. It supplements the stipulations of the Admission Regulations of ETH Zurich and the Directive on Admission to Master's Degree Programmes.

## Contents

- 1 Profile of requirements**
  - 1.1 Degree qualifications
  - 1.2 Academic prerequisites
  - 1.3 Language prerequisites
  
- 2 Specific stipulations for persons holding a Bachelor's degree in Interdisciplinary Sciences from ETH Zurich**
  
- 3 Specific stipulations for persons holding Bachelor's degrees in other disciplines**
  - 3.1 General regulations
  - 3.2 Bachelor's degree from ETH Zurich
  - 3.3 Bachelor's degree from another university
  
- 4 Application and admission procedure**
  
- 5 Fulfilling additional admission requirements**
  - 5.1 General regulations
  - 5.2 Performance assessment deadlines and conditions

## 1 Profile of requirements

### *Policy*

For admission to the Master's degree programme in Interdisciplinary 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 Interdisciplinary Sciences comprising at least 180 ECTS<sup>1</sup> credits or an equivalent university degree in Interdisciplinary Sciences
- b. a university Bachelor's degree comprising at least 180 ECTS credits or an equivalent university degree in a discipline of the natural sciences whose content covers the academic prerequisites listed in 1.2. Said disciplines include, in particular:
  - Biology
  - Chemistry
  - Physics

<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

#### 1.2.1 Knowledge and competences

<sup>1</sup> Attendance of the Master's degree programme in Interdisciplinary Sciences presupposes basic knowledge and competences in Mathematics, Chemistry, Biology and Physics which are in content, scope and quality equivalent to those covered in the ETH Bachelor's degree programme in Interdisciplinary Sciences (discipline requirements profile).

<sup>2</sup> The discipline requirements profile is based on knowledge and competences covered in the ETH Bachelor's degree programme in Interdisciplinary Sciences. This includes training in the relevant methodological scientific thinking. The exact requirements depend on the background of the candidate.

<sup>3</sup> The discipline requirements profile is structured in two parts, as follows. Details regarding the content of the corresponding course units are published in the course catalogue ([www.vvz.ethz.ch](http://www.vvz.ethz.ch)).

---

<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.

**Part 1: Basic knowledge and competences****A. Applicants with a background in the area of Mathematics - Physics - Chemistry**

For these applicants Part 1 comprises 92 ECTS credits and covers basic knowledge in mathematics, physics and chemistry. The substance of the following course units from the ETH Bachelor's degree programmes Physics and Chemistry is required:

<b>Course unit</b>	<b>ETH Bachelor's degree programme</b>	<b>Content</b>	<b>Credits</b>
Analysis I + II	Physics	Analysis	10+10
Lineare Algebra [Linear Algebra] I + II	Physics	Introduction to the theory of vector space	7+7
Physik [Physics] I	Physics	Classical mechanics and the theory of Relativity	7
Physik II	Physics	Oscillations, waves and thermodynamics	7
Physik III	Physics	Electricity and magnetism, introduction to quantum mechanics	7
Physikalische Chemie [Physical Chemistry] I	Chemistry	Chemical thermodynamics	4
Physikalische Chemie II	Chemistry	Chemical reaction kinetics	4
Physikalische Chemie III	Chemistry	Molecular quantum mechanics	4
Laboratory practicals in Physics or Chemistry			25

**B. Applicants with a background in the area of Chemistry - Biology**

For these applicants Part 1 comprises 101 ECTS credits and covers basic knowledge in mathematics, physics, chemistry and biology. The substance of the following course units from the ETH Bachelor's degree programmes Chemistry and Biology is required:

<b>Course unit</b>	<b>ETH Bachelor's degree programme</b>	<b>Content</b>	<b>Credits</b>
Grundlagen der Mathematik [Mathematical foundations] IA + IB	Chemistry	One- and multidimensional analysis	5+3
Grundlagen der Mathematik II	Chemistry	Linear algebra and statistics	3

Course unit	ETH Bachelor's degree programme	Content	Credits
Mathematik [Mathematics] III	Chemistry	Partial differential equations	4
Physik [Physics] I	Chemistry	Mechanics, oscillations and waves	4
Physik II	Chemistry	Electricity, magnetism, optics and quantum optics	4
Allgemeine Chemie AC [General Inorganic Chemistry] I + II	Chemistry	Fundamentals of inorganic chemistry	3+4
Allgemeine Chemie PC [General Physical Chemistry]	Chemistry	Physical bases of chemistry	3
Physikalische Chemie [Physical Chemistry] I	Chemistry	Thermodynamics	4
Physikalische Chemie II	Chemistry	Chemical reaction kinetics	4
Physikalische Chemie III	Chemistry	Molecular quantum mechanics	4
Organische Chemie [Organic Chemistry] I	Chemistry	Chemical reactivity and materials families	3
Organische Chemie II	Chemistry	Shift reactions and natural materials families	3
Grundlagen der Biologie [Fundamentals of Biology] IA	Biology		5
Grundlagen der Biologie IB	Biology		5
Laboratory practicals in Chemistry or Biology			40

## Part 2: Subject-specific knowledge and competences

Part 2 covers subject-specific knowledge in mathematics, physics, chemistry and biology and comprises:

- a. 61 credits for applicants with a background in Mathematics – Physics – Chemistry
- b. 49 credits for applicants with a background in Chemistry - Biology

### 1.2.2 Admission with additional requirements

<sup>1</sup> If the academic prerequisites listed in 1.2.1 are not completely satisfied, admission may be granted subject to the acquisition of the missing knowledge and competences in the form of additional credits (admission with additional requirements).

<sup>2</sup> The candidate must provide proof of the acquisition of the additional knowledge and competences required by passing the pertaining performance assessments by set deadlines (see Section 5).

<sup>3</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.

### 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.

## 2 Specific stipulations for persons holding a Bachelor's degree in Interdisciplinary Sciences from ETH Zurich

### *Unconditional admission*

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

<sup>2</sup> The exception is an additional propaedeutic training requirement for certain Master's degree programme specialisations (see the Programme Regulations, Art. 25, Para. 1).

### *Registration*

<sup>3</sup> Students of the Bachelor's degree programme in Interdisciplinary Sciences already matriculated at ETH Zurich should enrol in the Master's degree programme directly via [www.mystudies.ethz.ch](http://www.mystudies.ethz.ch). The admission procedure outlined in Section 4 is dispensed with.

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

<sup>4</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.

---

<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)

- b. 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> Students of the ETH Bachelor's degree programme in Interdisciplinary Sciences may enrol directly in the degree programme, as long as only 40 credits maximum from the Bachelor's degree programme are pending.

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

#### **3.1 General regulations**

##### *Admission*

<sup>1</sup> For admission to the degree programme all the prerequisites set out in Section 1 must be satisfied. Very good performance in the preceding course of studies is also required.

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

<sup>3</sup> Admission is not possible if the number of additional credits required to satisfy the academic prerequisites exceeds 30.

##### *Application*

Interested parties who hold a qualifying Bachelor's degree in a discipline other than Interdisciplinary Sciences should apply for the Master's degree programme via the ETH Zurich Admissions Office, and are subject to the admissions procedure set out in Section 4.

#### **3.2 Bachelor's degree from ETH Zürich**

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

<sup>1</sup> For all Bachelor's degree students who are already matriculated at ETH Zurich and who progress to an ETH Master's degree programme, the following applies:

- a. The normal ETH enrolment dates and deadlines apply.
- b. 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> Students from an ETH Bachelor's degree programme who have been granted admission can enrol in the Master's degree 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>

---

<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).

### **3.3 Bachelor's degree from another university**

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

Candidates who have been granted admission can enter the programme when they have completed the preceding Bachelor's degree programme.

## **4 Application and admission procedure**

<sup>1</sup> All interested parties – with the exception of matriculated ETH Zurich students from the Bachelor's degree programme in Interdisciplinary 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> 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>4</sup> The Rector makes the final decision regarding admission without additional requirements, admission with additional requirements, or rejection.

<sup>5</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 competences 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 are set out in Section 5.2.

## **5.2 Performance assessment deadlines and conditions**

<sup>1</sup> Candidates 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 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.