

## Appendix 1

To the Programme Regulations 2023 of the  
Master's degree programme in Data Science

13.10.2022

Applies to students who commence or re-enter the degree programme in Autumn  
Semester 2023 or later.

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

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This Appendix sets out the academic, language and performance prerequisites and further details regarding admission to the Master's degree programme in Data Science. It supplements the stipulations of the ETH Zurich Admissions Ordinance<sup>1</sup> and the Directive on Admission to Master's degree programmes<sup>2</sup>.

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<sup>1</sup> SR 414.131.52

<sup>2</sup> [www.weisungen.ethz.ch](http://www.weisungen.ethz.ch)

## 1 Profile of requirements

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

### 1.1 Degree qualifications

<sup>1</sup> Admission to the degree programme presupposes a university Bachelor's degree comprising at least 180 ECTS credits, or an equivalent university degree, in a discipline the content of which – also with regard to any additional academic requirements within the given framework – satisfies the pertaining academic and performance admission prerequisites.

<sup>2</sup> Said disciplines include, in particular (listed alphabetically):

- Electrical Engineering
- Computer Science
- Mechanical Engineering
- Mathematics
- Physics

<sup>3</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 degree programme presupposes basic knowledge and skills in Mathematics and Computer Science which must in content, scope, quality and level of mastery be equivalent to those covered in the ETH Bachelor's degree programmes (discipline requirements profile).

<sup>2</sup> The **discipline requirements profile** detailed below comprises **76 ECTS credits** in total and is based on knowledge and skills covered in the ETH Bachelor's degree programmes in the disciplines listed in Section 1.1. This includes training in the relevant methodological scientific thinking.

<sup>3</sup> If a candidate 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 ECTS credits.

<sup>4</sup> The discipline requirements profile is structured in the two parts set out below. Information on the content of the course units is published in the ETH Course Catalogue ([www.vvz.ethz.ch](http://www.vvz.ethz.ch)).

### **Part 1: Basic knowledge and skills (60 ECTS credits)**

Part 1 comprises 60 ECTS credits and covers basic knowledge and skills in Mathematics and Computer Sciences. The substance of the following course units is required:

#### **Area Mathematics (30 ECTS credits)**

- Analysis
- Linear Algebra
- Numerical Methods
- Probability and Statistics

#### **Area Computer Science (30 ECTS credits)**

- Data Structures and Algorithms
- Data Modeling and Databases
- Complexity Theory
- Programming

### **Part 2: Subject-specific knowledge and skills (16 ECTS credits)**

Part 2 comprises 16 ECTS credits and covers subject-specific knowledge and skills in Data Analysis and Data Management.

## **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>3</sup>) must be provided.

<sup>3</sup> The required language certificate must be submitted at the latest by the last day of the application deadline. A list of recognised language certificates is published on the ETH Zurich website.

## **1.4 Performance prerequisites**

Admission to the degree programme presupposes a very good study performance record in the preceding course of studies.

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<sup>3</sup> The required language level is measured according to the Common European Framework of Reference for Languages scale (CEFR).

## 2 Specific stipulations for admission

<sup>1</sup> Holders of a university Bachelor's degree or an equivalent university qualification must satisfy all of the 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 are not satisfied; or
- b. the performance prerequisites are not satisfied; or
- c. the number of additional ECTS credits required to satisfy the academic prerequisites exceeds 30 ECTS credits in total.

## 3 Entering the Master's degree programme

### 3.1 Bachelor's degree from ETH Zurich

<sup>1</sup> Bachelor's degree students enrolled at ETH Zurich can enrol in the Master's degree programme once they have acquired that number of ECTS credits which would qualify them to enrol in the Master's degree programme consecutive to their original subject<sup>4</sup>.

<sup>2</sup> The normal ETH Zurich enrolment dates and deadlines apply.

<sup>3</sup> 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.

### 3.2 Bachelor's degree from another university

Candidates with a positive admission decision can enter the degree programme if they have successfully completed the previous (Bachelor's) degree programme.

## 4 Application and admission procedure

<sup>1</sup> All candidates must submit an application for admission to the degree programme at the admission office. The specifications for application, in particular the documents required and the dates and 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 at a time when the required preceding degree has not yet been issued.

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<sup>4</sup> The permissible number of missing ECTS credits is defined in the study regulations of the respective consecutive Master's degree program (e.g.: BSc Computer Science -> MSc Computer Science).

<sup>3</sup> Applications will not be considered if

- a. they are submitted late or not in the correct form; or
- b. the respective fees have not been 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 of the degree programme.

<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 the 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 degree programme via independent 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 they 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 upon the background of the candidate.

### **5.2 Persons with a 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 repetitions of performance assessments, must be fulfilled within one and half years 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.