Appendix 1

To the Programme Regulations 2017 of the Master's degree programme in Pharmacy

18 October 2016 (Version: 01. August 2020)

Applies to students who commence or re-enter the degree programme in Autumn Semester 2021 or later.

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

Subject and scope

This appendix sets out the academic and language prerequisites for and further details regarding admission to the Master's degree programme in Pharmacy. 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 Pharmacy (subsequently 'the degree programme') all of the following prerequisites must be satisfied.

1.1 Degree qualifications

¹ For the admission to the degree programme one of the following is required:

- a. a university Bachelor's degree in Pharmaceutical Sciences comprising at least 180 ECTS⁽¹⁾ credits or an equivalent university degree in Pharmaceutical Sciences
- a university Bachelor's degree in a discipline other than Pharmaceutical Sciences comprising at least 180 ETCS credits or an equivalent university degree which – provided that any pertaining additional requirements can be completed within the set framework – satisfies the academic prerequisites.
- ² 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 Attendance of the Master's degree programme in Pharmacy presupposes basic knowledge and skills in the disciplines Mathematics, Physics, Chemistry, Biology and Pharmaceutical Sciences which must in content, scope, quality and skill level be equivalent to those covered at ETH Zurich (discipline requirements profile).

² The **discipline requirements profile** comprises **141 credits** in total and includes the significant knowledge and skills covered in the ETH Bachelor's degree programme in Pharmaceutical Sciences. This includes training in the relevant methodological scientific thinking and in experimental competence. Details are set out in Para. 5 below.

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

Part 1: Basic knowledge and skills (79 credits)

Part 1 comprises 79 credits and covers basic knowledge and skills from the disciplines Mathematics and Natural Science. The substance of the following course units is required:

– Mathematics	11 credits
- Statistics	6 credits
- Physics	6 credits
 General Chemistry 	4 credits
Organic Chemistry	9 credits
 Physical Chemistry 	3 credits
Analytics	3 credits
 Fundamentals of Biology 1: Of Molecules 	
on the Biochemistry of the Cell	6 credits
 Fundamentals of Biology 2: Cells 	6 credits
 Fundamentals of Biology 3: Multicellularity 	8 credits
 Systematic Biology Plants 	5 credits
 Anatomy, Physiology and Histology 	12 credits

Part 2: Subject-specific knowledge and skills (30 credits)

Part 2 comprises 30 credits and covers specific knowledge in Pharmaceutical Sciences. The substance of the following course units is required:

_	Medicinal Chemistry	4 credits
_	Pharmaceutical Biology	3 credits
_	Galenical Pharmacy	4 credits
_	Pharmaceutical Immunology	2 credits
_	Gene Technology	2 credits
_	Pathobiology	4 credits
_	Clinical Microbiology	1 credit
_	Pharmacology and Toxicology	5 credits
_	Biopharmacy	3 credits
_	Clinical Chemistry	1 credit
_	Qualitymanagement in Pharmaceutical	
	Business	1 credit

³ 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 4 below.

⁴ Admission to the degree programme is not possible if the academic gaps in the candidate's background are too extensive. For further details, see the Sections below.

⁵ The **discipline requirements profile** is structured in three parts set out below. Details regarding the content of the corresponding course units are published in the ETH Course Catalogue (<u>www.courses.ethz.ch</u>).

Part 3: Practical knowledge and skills (32 credits)

Part 3 comprises 32 credits and covers practical laboratory knowledge and skills in the following disciplines:

- at least 12 credits in Chemistry
- at least 8 credits in Biology, and
- at least 12 credits in the area of Pharmaceutical Sciences.

Content and level of mastery are based on those covered in the following laboratory courses

_	Laboratory Course in General Chemistry	(6 credits)
-	Practical Course in Organic Chemistry	(8 credits)
-	Practical Course in Physical Chemistry	(3 credits)
-	Fundamentals of Biology I	(8 credits)
-	Fundamentals of Biology II	(4 credits)
-	Laboratory Course in Galenical Pharmacy	(5 credits)
-	Laboratory Course in Pharmaceutical Analytics	(4 credits)
-	Practical Course in Medicinal Chemistry	(3 credits)
_	Laboratory Course in Pharmaceutical Biology	(3 credits)
-	Laboratory Course in Biopharmacy	(2 credits)
_	Practical Course in Medicinal Microbiology	(1 credit)

1.3 Language prerequisites

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¹ The teaching languages of the degree programme are German and English.

² For admission to the degree programme, proof of sufficient knowledge of German and English (level C1)⁽² must be provided.

³ The required language certificates must be submitted by the application deadline. The ETH Zurich publishes a list of the language certificates accepted.

² The required language level is measured according to the Common European Framework of Reference for Languages (CEFR) scale

2 Specific stipulations for admission and entering the degree programme

2.1 Specific stipulations for admission to the degree programme

2.1.1 Candidates with a Bachelor's degree in Pharmaceutical Sciences from ETH Zurich

Unconditional admission

The following persons are guaranteed unconditional admission to the degree programme:

- a. Holders of a Bachelor's degree in Pharmaceutical Sciences from ETH Zurich
- b. Students enrolled in this ETH Zurich Bachelor's degree programme

2.1.2 Candidates with a Bachelor's degree in Pharmaceutical Sciences from another university

- 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 credits required to satisfy the academic prerequisites exceeds
 - 1) 30 credits in total, or
 - 2) 18 credits from Part 1 of the academic prerequisites, or
 - 3) 12 credits from Part 2 of the academic prerequisites, or
 - 4) 8 credits from Part 3 of the academic prerequisites.

2.1.3 Candidates with a university Bachelor's degree in a discipline other than Pharmaceutical Sciences

- a. the academic requirements set out above are satisfied within the given framework
- b. the language prerequisites set out above are satisfied
- c. a very good academic performance during the Bachelor's degree studies

¹ Holders of a Bachelor's degree or the equivalent in Pharmaceutical Sciences from another university than ETH Zurich must satisfy all of the academic and language prerequisites listed in Section 1 above for admission to the degree programme.

² Admission may be subject to additional requirements.

³ Admission is not possible if any of the following apply

¹ Holders of a university Bachelor's degree or the equivalent in a discipline other than Pharmaceutical Sciences may be admitted to the degree programme if they can satisfy all of the following prerequisites

- ³ Admission is not possible if any of the following apply
 - a. the language or performance prerequisites are not satisfied
 - the content, scope, quality and skills level of the degree are not equivalent to those at ETH Zurich
 - c. the number of additional credits required to satisfy the academic prerequisites exceeds
 - 1) 30 credits in total, or
 - 2) 18 credits from Part 1 of the academic prerequisites, or
 - 3) 12 credits from Part 2 of the academic prerequisites, or
 - 4) 8 credits from Part 3 of the academic prerequisites.

2.2 Specific stipulations for entering the degree programme

2.2.1 Candidates with an ETH Bachelor's degree in Pharmaceutical Sciences

Students of the ETH Zurich Bachelor's degree programme in Pharmaceutical Sciences may enrol in the degree programme directly via *www.mystudies.ethz.ch*. The admission procedure outlined in Section 3 is waived. Further details:

- a. The normal ETH enrolment dates and deadlines apply.
- b. Enrolment is possible as soon as only a maximum of 8 credits towards the Bachelor's degree are pending.
- 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.

2.2.2 Candidates with an ETH Bachelor's degree in a discipline other than Pharmaceutical Sciences

The following stipulations regarding entry to the Master's degree programme apply to students from an ETH Zurich Bachelor's degree programme (other than Pharmaceutical Sciences) who have been granted admission:

- a. The normal ETH enrolment dates and deadlines apply.
- b. 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.³
- 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.

² Admission may be subject to additional requirements.

³ The permitted number of missing credits is set out in the Programme Regulations of the respective consecutive Master's degree programme (e.g., BSc Biology \rightarrow MSc Biology).

2.2.3 Candidates with a Bachelor's degree from another university

Non-ETH graduates who have been granted admission may only begin the degree programme when they have completed the preceding (Bachelor's) degree programme.

3 Application and admission procedure

- ¹ All candidates with the exception of matriculated ETH Zurich students from the Bachelor's degree programme in Pharmaceutical Sciences must submit an application for admission to the degree programme. The binding specifications for application, in particular the documents required and the submission dates/deadlines, are published on the website of the ETH Zurich Admissions Office (www.admission.ethz.ch).
- ² Application may be made even if the required preceding degree has not yet been issued.
- ³ Applications will not be considered if
 - a. they are submitted late or not in the correct form, or
 - b. the relevant fees have not been paid.
- ⁴ 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.
- ⁵ On the request of the Director of Studies the Rector makes the final decision regarding admission or rejection.
- ⁶ 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

- ¹ 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.
- ² If the candidate fails said performance assessments or does not respect the set deadlines she/he will be regarded as having failed the programme and will be excluded from it.
- ³ The deadlines and conditions for undergoing said performance assessments are set out in Section 4.2 below.

4.2 Deadlines and conditions for performance assessments

¹ 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 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.

² A pass grade in each individual performance assessment is required.

³ A failed performance assessment may only be repeated once.