

**Programme Regulations 2006**  
**of the Master's degree programme in**  
**Management, Technology, and Economics**  
**Department of Management, Technology, and Economics**

5 July 2006<sup>(1)</sup>

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

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Version: **23.05.2019 – 6**

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<sup>1</sup> With changes pursuant to the Departmental Conference D-MTEC resolution of 30.09.2009, 26.02.2015, 11.05.2017 and 23.05.2019 and the Executive Board resolution of 31.08.2010 and 16.11.2010. This version of the Programme Regulations (23.05.2019 – 6) replaces the previous version (11.05.2017 – 5).

# **Programme Regulations 2006 of the Master's degree programme in Management, Technology, and Economics**

## **Department of Management, Technology, and Economics**

5 July 2006

(Version: 23 May 2019)

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

*The ETH Zurich Executive Board,*

pursuant to Art. 4, Para. 1, Subpara. a of the ETH Zurich Organisational Ordinance  
(*Organisationsverordnung ETH Zürich*) of 16 December 2003,<sup>(2)</sup>

*decrees:*

### **Chapter 1:           General regulations**

#### **Part 1:               General**

##### **Art. 1           Subject and scope, Appendix**

<sup>1</sup> These Programme Regulations set out the requirements according to which the Master's degree in Management, Technology, and Economics at the ETH Zurich Department of Management, Technology, and Economics (D-MTEC) may be acquired.

<sup>2</sup> The Appendix is a part of these Programme Regulations. Any changes to the Appendix are subject to the approval of the Rector, on the request of or in consultation with D-MTEC.

##### **Art. 2           Academic title**

<sup>1</sup> Graduates of the ETH Zurich Master's degree programme in Management, Technology, and Economics (degree programme) are awarded the academic title

(in German) Master of Science ETH in Management, Technologie und Ökonomie  
(abbreviation: MSc ETH MTEC)

<sup>2</sup> The English form of this title is

Master of Science ETH in Management, Technology, and Economics  
(abbreviation: MSc ETH MTEC)

<sup>3</sup> This title may also be used in the abbreviated form 'MSc ETH'.

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<sup>2</sup> RSETHZ 201.021

### **Art. 3**      Legal basis

These Programme Regulations are based upon the stipulations set out in the following legal documents:

- a. Ordinance on Course Units and Performance Assessments at ETH Zurich of 22 May 2012<sup>3</sup> (*Leistungskontrollenverordnung ETH Zürich*)
- b. Ordinance on Admission to Studying at ETH Zurich of 30 November 2010<sup>4</sup> (*Zulassungsverordnung ETH Zürich*)

### **Art. 4**      Course Catalogue

<sup>1</sup> D-MTEC lists the course units of the degree programme for each semester in the Course Catalogue. This list is binding.

<sup>2</sup> Details regarding entries in the Course Catalogue are set out in Art. 4 of the General Ordinance on Performance Assessments at ETH Zurich<sup>5</sup> and in the corresponding implementation stipulations<sup>6</sup> of the Rector.

### **Art. 5**      Language of instruction

Course units and the corresponding performance assessments are normally conducted in English. The language of instruction is subject to the pertaining Rector's directives<sup>7</sup>.

### **Art. 6**      Admission to course units

Special admission prerequisites may apply to the attendance of a particular course unit. These are determined by that ETH Zurich department or that university which offers the course unit.

## **Part 2:      Credit system**

### **Art. 7**      Policy

<sup>1</sup> The degree programme follows a credit system which is aligned with the European Credit Transfer System (ECTS).

<sup>2</sup> ETH Zurich deploys the ECTS in accordance with the Credit System Guidelines of the Rector (*Richtlinien zum Kreditsystem*).<sup>8</sup>

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<sup>3</sup> RSETHZ 322.021en (*in English*), SR 414.135.1 (*in German*)

<sup>4</sup> (*only in German*) SR 414.131.52, RSETHZ 310.5

<sup>5</sup> RSETHZ 322.021en (*in English*), SR 414.135.1 (*in German*)

<sup>6</sup> See [www.directives.ethz.ch](http://www.directives.ethz.ch)

<sup>7</sup> See [www.directives.ethz.ch](http://www.directives.ethz.ch)

<sup>8</sup> See [www.weisungen.ethz.ch](http://www.weisungen.ethz.ch) (*only in German*)

## **Art. 8** Credits

Credits describe the average time expenditure required for a student to earn a study achievement.

## **Art. 9** Basis for calculation

<sup>1</sup> One credit corresponds to a workload of 30 hours. The workload includes all course-related activities required to obtain credits.

<sup>2</sup> The curriculum is designed in such a way that full-time students can acquire an average of 30 credits per semester.

## **Art. 10** Allocation of credits

<sup>1</sup> D-MTEC allocates a certain number of credits to each of the course units it offers.

<sup>2</sup> If an ETH Zurich course unit is found on the curriculum of more than one ETH Zurich degree programme, the department offering the course unit assigns it a standard number of credits in consultation with those integrating it into a programme. The Rector settles any disagreements.

<sup>3</sup> If a course unit is offered by another university that university is responsible for allocating it a certain number of credits.

## **Art. 11** Issuing of credits

<sup>1</sup> Credits are issued for satisfactory performance. Performance is considered satisfactory if it has been awarded a grade of at least a 4, or a “pass”.

<sup>2</sup> No credits are issued for unsatisfactory performance.

<sup>3</sup> The full number of credits are always issued if the prerequisites of Para. 1 have been satisfied. Partial issue of credits is not permitted.

<sup>4</sup> The number of credits issued is that number published in the Course Catalogue valid at the time the respective performance assessment was undertaken.

## **Art. 12** Recording, checking, registration

D-MTEC records, checks and registers the credits acquired.

## **Chapter 2: Content, structure and scope of the Master's degree programme**

### **Part 1: Content, structure and scope**

#### **Art. 13 Programme content**

<sup>1</sup> The Master's degree programme Management, Technology and Economics (hereafter referred to as MTEC) builds upon a broad technical and/or scientific foundation. Students of the programme acquire interdisciplinary skills in the areas listed in Para. 2. These interdisciplinary skills, augmented by a specialisation in one subject area, train graduates to be independent problem-solvers and equip them to assume leadership positions.

<sup>2</sup> Skills areas:

- a. General Management and Human Resources Management
- b. Strategy, Markets and Technology<sup>9</sup>
- c. Information Management and Operations Management
- d. Quantitative and Qualitative Methods for Solving Complex Problems
- e. Micro and Macroeconomics
- f. Financial Management

<sup>3</sup> Because a foundation in technology and/or science is required for admission to the Master's degree programme and because of the technical nature of the management and economics covered during the programme, the level of knowledge acquired during the MTEC Master's degree programme corresponds to that of degree programmes in Industrial Management and Engineering.

#### **Art. 14 Commencement of the programme**

Students may commence the Master's degree programme in either the Autumn or the Spring Semester. Most begin in the Autumn Semester.

#### **Art. 15 Scope, duration, limits on duration of studies**

<sup>1</sup> As stipulated in Art. 39, 120 credits are required to obtain a Master's degree.

<sup>2</sup> The normal duration of the degree programme is two years. There is no minimum duration of studies.

<sup>3</sup> The maximum permitted duration of studies is four years. The Rector may extend this if cogent grounds are provided in a request submitted by the respective deadline.

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<sup>9</sup> Version pursuant to the Departmental Conference D-MTEC resolution of 11.05.2017. It applies to students who enter the degree programme from Autumn Semester 2018 onwards.

<sup>4</sup> If admission to the degree programme is granted subject to the acquisition of additional credits (*admission with additional requirements*) the maximum permitted duration of studies may be extended by one semester for required extra credits in the range of 21 – 30 and by two semesters for required extra credits in the range of 31 – 60. For fewer than 21 required extra credits no extension is granted.

#### **Art. 16**     Structure, study procedures

<sup>1</sup> The Master's degree programme in MTEC is structured according to the skills areas listed in Art. 13, which each involve several course units (core courses).

<sup>2</sup> To ensure mastery of the required core skills students must normally complete core courses in all skills areas. In addition, they deepen knowledge in one subject area (specialisation) via an individually compiled specialisation programme which is assembled by each student in consultation with the tutor.

<sup>3</sup> Details regarding attendance of core courses and the individual specialisation programme, including the tutoring system, are provided in Art. 22 and 23.

#### **Art. 17**     Study Guide

Programme procedures are explained in the degree programme Study Guide.

#### **Art. 18**     Transferring from the ETH Zurich MAS MTEC/BWI programme

<sup>1</sup> Students enrolled in the ETH Zurich MAS MTEC/BWI (MAS MTEC) programme may transfer to or enter the Master's degree programme in MTEC (MSc MTEC) provided that they fulfil the pertaining admission requirements. Transfer or entry proceed according to the usual application and admission procedures.

<sup>2</sup> Credits acquired in the context of the MAS MTEC programme are recognised towards the Master's degree in MTEC (MSc MTEC) provided that

- a. the corresponding course units also belong to the MSc MTEC curriculum;
- b. not more than five years have passed between acquisition of the credits and the beginning of the Master's degree programme (MSc MTEC);
- c. the credits have not already been recognised towards an earlier degree.

<sup>3</sup> Recognition of credits according to Para. 2 proceeds via transfer of credits, i.e. the course units completed during the MAS MTEC programme, the grades awarded and the corresponding credits are listed in the academic record of the MSc MTEC programme.

<sup>4</sup> If transfer or entry to the Master's degree programme in MTEC takes place after the MAS MTEC programme has been completed, no credits recognised towards the MAS MTEC qualification may be counted towards the Master's degree in MTEC.

## **Art. 19** Student exchange (outgoing students)

<sup>1</sup> During the Master's degree programme credits may be acquired at other universities (mobility credits). Of these a maximum of 30 may be counted towards the Master's degree. The stipulations of Para. 1<sup>bis</sup> and 1<sup>ter</sup> still apply.

<sup>1bis</sup> Students who did not complete the preceding (Bachelor's) degree at ETH Zurich may not take part in ETH Zurich exchange programmes. Individual exchange stays are possible, but the recognition of mobility credits towards the Master's degree is not possible.

<sup>1ter</sup> If admission to the degree programme is subject to the acquisition of additional credits (admission with additional requirements) an exchange stay is only possible after all additional requirements have been fulfilled. Mobility credits may not be counted towards fulfilment of additional requirements.

<sup>2</sup> The following credits do not qualify as mobility credits:

- a. credits from course units of other universities if said course units belong to the degree programme curriculum
- b. credits from the Master's thesis, because the thesis is always supervised by an D-MTEC professor (see Art. 38 Para. 2)
- c. credits earned for the industrial internship

<sup>3</sup> Before a period of student exchange the respective student, with the help of the tutor, draws up a written study plan which includes the credits to be acquired at the host university. This study plan requires the approval of the Director of Studies.

<sup>4</sup> The Director of Studies makes the final decision on recognition of mobility credits. Treatment of transcripts of records is governed by Art. 16 of the Ordinance on Performance Assessments at ETH Zurich<sup>(10)</sup> and the corresponding implementation stipulations<sup>(11)</sup> of the Rector.

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<sup>10</sup> RSETHZ 322.021en (*in English*), SR 414.135.1 (*in German*)

<sup>11</sup> See [www.directives.ethz.ch](http://www.directives.ethz.ch)

## **Part 2: Fields of study and grouping by category**

### **Art. 20** Categories

<sup>1</sup> To obtain a Master's degree study achievements are required in the following categories. The minimum number of credits required in each category is set out in Art. 39.

- a. Core courses
- b. Electives
- c. Supplementary courses
- d. Industrial internship
- e. Master's thesis

<sup>2</sup> D-MTEC assigns course units to the categories in Para. 1 and publishes them in the Course Catalogue.

### **Art. 21** Overview of categories

<sup>1</sup> **Core courses:** Core courses cover the fundamentals of the skills areas listed in Art. 12 and are of central importance. Details regarding attendance of core courses are provided in Art. 22 and 23; stipulations governing performance assessments are found in Art. 36.

<sup>2</sup> **Electives:** Electives extend and deepen the knowledge imparted in the previous Bachelor's degree programme and in the core courses of the Master's degree programme. Details regarding attendance of electives are provided in Art. 23; stipulations governing performance assessments are found in Art. 36.

<sup>3</sup> **Supplementary courses:** Supplementary courses deepen the technical and/or scientific knowledge imparted in the Bachelor's degree programme, to equip the student with more extended knowledge in these areas after completion of the Master's degree programme. Details regarding attendance of supplementary courses are provided in Art. 24; stipulations governing performance assessments are found in Art. 36.

<sup>4</sup> **Industrial internship:** The knowledge and experience gained during the industrial internship through the student's own practical work and through observation form an important extension of the D-MTEC programme. Further details are given in Art. 37.

<sup>5</sup> **Master's thesis:** The Master's thesis concludes the degree programme. With the Master's thesis students demonstrate their ability to produce independent, structured scientific work. Further details are given in Art. 38.



### **Part 3: Particular stipulations governing the skills areas, the individual specialisation programme and the supplementary courses**

#### **Art. 22** Skills areas, core courses

<sup>1</sup> The skills areas listed in Art. 13 each comprise several course units (core courses). D-MTEC allocates core courses to the individual skills areas according to separate guidelines. Details regarding the content of the skills areas are provided in the Study Guide to the MTEC Master's degree programme.

<sup>2</sup> At least 42 credits must be earned in core courses to obtain the Master's degree. The following stipulations also apply:

- a. A required minimum number of credits must also be obtained in each skills area. The corresponding details are provided by D-MTEC in separate guidelines (Study Plan). The minimum number of credits given in these guidelines may exceed, but not come to less than 42.
- b. If the required number of credits in a skills area can no longer be acquired the Master's degree programme in MTEC will be regarded as failed and the student in question will be excluded from the degree programme.
- c. Further credits in core courses may be acquired in the context of the individual specialisation programme according to the stipulations of Art. 23.
- d. Students who have already acquired the minimum knowledge or the minimum number of credits required in a skills area during the previous (Bachelor's) degree programme must either complete further core courses from this skills area or earn more than the minimum required number of credits in other skills areas. The affected students, in consultation with their tutors, set out the core courses to be completed in the individual specialisation programme. A reduction in the minimum number of required credits is not possible.
- e. D-MTEC is responsible for overseeing compliance with the stipulations of Subpara. a – d.

#### **Art. 23** Individual specialisation programme, tutoring system

<sup>1</sup> During the Master's degree programme specialised knowledge must be acquired in one subject area (the specialisation).

<sup>2</sup> During the first semester of the Master's degree programme every student selects a professor from the D-MTEC faculty to be his/her tutor. In consultation with the tutor the student then draws up the individual specialisation programme, which comprises a combination of core and elective courses.

<sup>3</sup> A Master's degree programme may not be undertaken without a tutor. The student has no rights to a particular tutor.

<sup>4</sup> The Director of Studies can, on request, approve a change of tutor if cogent grounds are given. A change is only possible at the beginning of a semester. Any disputes between the Director of Studies and the respective student are settled by the Rector.

#### **Art. 24**<sup>(12)</sup> Supplementary courses

The student chooses the supplementary courses to be taken in consultation with the tutor. The study administration office examines and confirms the choice.

### **Chapter 3:**<sup>(13)</sup> **Admission to the Master's degree programme**

#### **Art. 25** Prerequisites for admission

<sup>1</sup> Admission to the degree programme requires a university Bachelor's degree comprising at least 180 ECTS credits or an equivalent university degree in Mechanical Engineering or Electrical Engineering and Information Technology or another qualifying discipline.

<sup>2</sup> Details of the academic and language prerequisites for admission (profile of requirements) are provided in the Appendix.

#### **Art. 26** Enrolment, admission procedure and entry to the Master's degree programme

<sup>1</sup> Students of the Bachelor's degree programme in Mechanical Engineering or Electrical Engineering and Information Technology already matriculated at ETH Zurich may enrol directly in the Master's degree programme in Management, Technology, and Economics.

<sup>2</sup> All other interested parties should apply to the ETH Zurich Rectorate for admission to the degree programme.

<sup>3</sup> The admissions committee of D-MTEC investigates candidates' academic backgrounds and suitability for the Master's degree programme and submits a recommendation for admission/rejection to the Director of Studies.

<sup>4</sup> The Rector decides whether to admit/reject the candidate on the basis of the recommendation of the Director of Studies.

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<sup>12</sup> Version pursuant to the Departmental Conference D-MTEC resolution of 23.05.2019. It applies to students who enter the degree programme from Autumn Semester 2019 onwards.

<sup>13</sup> Version pursuant to the Executive Board resolution of 31.08.2010. It applies to students who enter the degree programme from Autumn Semester 2011 onwards. This chapter was revised (Articles 25 and 26 were revised; articles 27 and 28 were rescinded) following the restatement of the profile of requirements for the degree programme (provided in the Appendix).

<sup>5</sup> The Rector may, depending on the candidate's qualifications and previous knowledge, make admission conditional upon the acquisition of additional knowledge and competences during the Master's degree programme (admission with additional requirements).

<sup>6</sup> Details regarding enrolment or application, the admission procedure and entry to the Master's degree programme are determined by the Rector. They are set out in the Appendix.

**Art. 27**            *Rescinded*

**Art. 28**            *Rescinded*

## **Chapter 4:            Performance assessments**

### **Part 1:                General regulations**

**Art. 29**            Performance evaluation

Performance in examinations is graded. Performance in other forms of performance assessment is either graded or evaluated on a pass/fail basis.

**Art. 30**            Admission to performance assessments

Admission to performance assessments may be subject to conditions. These are specified by the department of ETH Zurich or the university offering the respective course unit.

**Art. 31**            Registering/deregistering for performance assessments

<sup>1</sup> The following stipulations apply to registration/deregistration for performance assessments at ETH Zurich:

- a. If the performance assessments in question are session examinations or end-of-semester examinations, registration and deregistration are governed by the stipulations of the ETH Zurich Ordinance on Performance Assessments<sup>14</sup> and the corresponding implementation stipulations<sup>15</sup> of the Rector.
- b. If the performance assessments fall into another category, registration and deregistration are handled directly by the respective lecturer.

<sup>2</sup> If the performance assessments concerned are those of another university, registration and deregistration are subject to the rules of that university.

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<sup>14</sup> RSETHZ 322.021en (*in English*), SR 414.135.1 (*in German*)

<sup>15</sup> See [www.directives.ethz.ch](http://www.directives.ethz.ch)

**Art. 32** Absence, interruption, abandonment, late submission or non-submission

The following stipulations apply to absence from, interruption or abandonment of, and late submission or non-submission of performance assessments:

- a. For ETH Zurich performance assessments the stipulations of the ETH Zurich Ordinance on Performance Assessments<sup>(16)</sup> and the corresponding implementation stipulations<sup>(17)</sup> of the Rector apply.
- b. For performance assessments of other universities the rules of the respective university apply.

**Art. 33** *Rescinded*<sup>(18)</sup>

**Art. 34** Issuing of results, disagreements

<sup>1</sup> Students may view all of their performance results via the internet in the respective ETH Zurich application. They are informed by email when their examination results become viewable.

<sup>2</sup> Every communication outlines the procedure in cases of disagreement about newly documented results.

**Art. 35** Unethical behaviour

The sanctions for unethical behaviour in the context of performance assessments are governed by the Disciplinary Code of ETH Zurich (*Disziplinarordnung ETH Zürich*) of 2 November 2004.<sup>(19)</sup>

**Part 2: Performance assessments in the Master's degree programme**

**Art. 36** Core courses, electives, supplementary courses

<sup>1</sup> Every course unit in the categories 'core courses', 'electives' and 'supplementary courses' is subject to a performance assessment.

<sup>2</sup> The respective mode of each performance assessment is listed in the Course Catalogue if the course unit is offered by ETH Zurich.

<sup>3</sup> If a course unit is offered by another university that university determines the performance assessment mode of said course unit.

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<sup>16</sup> RSETHZ 322.021en (*in English*), SR 414.135.1 (*in German*)

<sup>17</sup> See [www.directives.ethz.ch](http://www.directives.ethz.ch)

<sup>18</sup> Rescinded by the Executive Board resolution of 16.11.2010.

<sup>19</sup> RSETHZ 361.1eng (*in English*), SR 414.138.1 (*in German*)

<sup>4</sup> A performance assessment is passed if it is awarded a grade of at least a 4 or a 'pass'.

<sup>5</sup> A failed performance assessment may be repeated once unless the ETH Zurich department or the university offering the respective course unit stipulates otherwise.

### **Art. 37** Internship in industry

<sup>1</sup> The internship in industry is undertaken in a company and lasts at least ten weeks. It may be completed in Switzerland or abroad either before or during the Master's degree programme.

<sup>2</sup> It is the student's responsibility to obtain a confirmation of the completed internship from the respective company.

<sup>3</sup> The industrial internship is evaluated on a pass/fail basis, subject to the confirmation mentioned in Para. 3 above.

<sup>4</sup> A failed industrial internship may be repeated once.

<sup>5</sup> Further details are set out in the separate D-MTEC regulations regarding industrial internships.

### **Art. 38** Master's thesis

<sup>1</sup> A student is only permitted to commence the Master's thesis if

- a. the Bachelor's degree programme has been completed
- b. any additional requirements for admission to the degree programme have been fulfilled
- c. the industrial internship according to Art. 37 has been completed and the corresponding credits have been acquired
- d.<sup>(20)</sup> the academic writing course has been completed.

<sup>2</sup> The Master's thesis project is supervised by the tutor and normally covers a theme from the selected specialisation. It may be conducted at ETH Zurich, in a company or – in exceptional cases and with the prior written permission of the tutor – at another university.

<sup>3</sup> The length of time allowed for completion of the Master's thesis is six months (full-time studies). The Director of Studies may on request approve an extension if cogent grounds are given. His/her decision is final.

<sup>4</sup> The tutor defines the task to be addressed, puts down the starting date of the Master's thesis project, the deadline for thesis submission and the evaluation criteria in writing, and grades the student's performance.

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<sup>20</sup> Version pursuant to the Departmental Conference D-MTEC resolution of 26.02.2015. It applies to students who enter the degree programme from Spring Semester 2015 onwards.

<sup>5</sup> The Master's thesis is passed if it is awarded a grade of at least a 4.

<sup>6</sup> A failed Master's thesis project may be repeated once. If it is repeated, a new theme must be addressed. The repetition may be conducted with a new tutor.

## **Chapter 5: Issuing of the Master's degree**

### **Part 1: Credits by category and the degree request**

#### **Art. 39 Credits by category**

<sup>1</sup> The 120 credits required for the Master's degree must be acquired in the following categories in at least the numbers given. The numbers provided for core courses, electives and supplementary courses below are the minimums required. Further details are provided in Para. 2 – 4.

- |                          |  |
|--------------------------|--|
| a. Core courses          | at least 42 credits (see Art. 22, Para. 2, Subpara. a) |
| b. Electives             | at least 10 credits                                    |
| c. Supplementary courses | at least 12 credits                                    |
| d. Industrial internship | 6 credits  |
| e. Master's thesis       | 30 credits   |

<sup>2</sup> The maximum number of mobility credits countable towards the Master's degree programme is 30. The provisions of Art. 19 apply (Student exchange).

<sup>3</sup> The credits acquired by completing a course unit may not be split or counted more than once.

<sup>4</sup> Study achievements accrued prior to the Master's degree programme may not be counted towards the Master's degree, with the following exceptions:

- a. Credits acquired at ETH Zurich may be recognised in the categories 'Core courses', 'Electives' or 'Supplementary courses' (Para. 1, Subpara. a – c) if these credits have not already been counted towards a degree and if the student in question remained matriculated at ETH between acquiring said credits and commencing the Master's degree programme.
- b. Credits for industrial internships or the equivalent may be recognised in the category 'Industrial internship' (Para. 1, Subpara. d).
- c. Credits earned in the context of the MAS MTEC programme are subject to the special stipulations set out in Art. 18.

## **Art. 40** Degree request

<sup>1</sup> When they have fulfilled the particular requirements set out in Art. 22 – 24 and Art. 39, students may request the issue of the Master's degree. This request must be submitted within four years of commencing the Master's degree programme. If a request providing cogent grounds is submitted by the designated deadline the Rector may extend the deadline for the degree request.

<sup>2</sup> The request should contain all the performance achievements with pass grades in the categories listed in Art. 39, Para. 1 which are to be listed in the academic record. In each category the sum of the minimum number of credits set out in Art. 39, Para. 1 must be acquired.

<sup>3</sup> A maximum of 130 credits are recognised towards the Master's degree.

## **Part 2: Academic record, degree certificate and Diploma Supplement**

### **Art. 41** Documents

Students who complete the degree programme receive three documents: an academic record, a degree certificate and a Diploma Supplement.

### **Art. 42** Academic record

<sup>1</sup> The academic record serves as verification of the completed Master's degree.

<sup>2</sup> The academic record contains:

- a. the study achievements listed in the degree request according to Art. 40, Para. 2, including grades and other performance evaluation indicators
- b. the final grade, calculated as the weighted average of all the grades listed in the request with the corresponding credits as the weighting factor (*the Master's thesis grade is accordingly weighted at 30*)
- c. a separate sheet of the academic record lists:
  - 1) any additional admission requirements
  - 2) all further study achievements according to the corresponding implementation stipulations<sup>(21)</sup> of the Rector

<sup>3</sup> D-MTEC records, checks and registers the grades and other performance evaluation indicators and issues the order to print the academic record.

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<sup>21</sup> See [www.directives.ethz.ch](http://www.directives.ethz.ch)

**Art. 43** Degree certificate, Diploma Supplement

<sup>1</sup> Details regarding the degree certificate are set out in Art. 28 of the ETH Zurich Ordinance on Performance Assessments.<sup>(22)</sup>

<sup>2</sup> The Diploma Supplement comprises a standardised explanation of the degree.

## **Chapter 6: Final clauses**

**Art. 44** Definitive failure, exclusion from the degree programme

<sup>1</sup> The degree programme is regarded as definitively failed if one of the following applies:

- a. The conditions for obtaining the Master's degree (acquisition of the required number of credits for the Master's degree according to the stipulations of Art. 39, or any other conditions) can no longer be satisfied due to failure of performance assessments or failure to respect programme deadlines.<sup>(23)</sup>
- b. In cases of admission with additional requirements said additional requirements have not been fulfilled due to failure of performance assessments or failure to respect the deadlines set for them.

<sup>2</sup> Definitive failure results in exclusion from the degree programme.

**Art. 45** Transcript of records for non-graduating students

Students who are excluded from the degree programme or withdraw from it before obtaining the Master's degree receive a transcript of records which lists all the study achievements generated and evaluated before exclusion or withdrawal.

**Art. 46** Special cases

The Director of Studies rules on cases which are not or are not sufficiently addressed by these Programme Regulations, their appendix, or other relevant ordinances and directives.

**Art. 47** Entry into effect

These Programme Regulations enter into effect at the beginning of Winter Semester 2006/07. They apply to students who enter the degree programme from that date onwards.

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<sup>22</sup> RSETHZ 322.021en (*in English*), SR 414.135.1 (*in German*)

<sup>23</sup> Programme deadlines are the deadline for undertaking a performance assessment, individual assigned deadlines and the maximum permitted duration of studies.



On behalf of the Executive Board  
President: Hafen  
Delegate: Bretscher

## Appendix

To the Programme Regulations 2006 of the  
Master's Degree Programme in Management, Technology and Economics (MTEC)

31 August 2010 (Version: 1 November 2016)

*Applies to students who commence or re-enter the degree programme in Autumn Semester 2017 or later. Students who enter before Autumn Semester 2017 are subject to previous stipulations.*

*This is an English translation only. The original German version is the legally binding document.*

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### 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 Management, Technology and Economics (MTEC). 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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### 2 Specific stipulations for persons holding a Bachelor's degree in Mechanical Engineering or Electrical Engineering and Information Technology

- 2.1 Bachelor's degree from ETH Zurich in Mechanical Engineering or Electrical Engineering and Information Technology, or enrolled status in one of these two programmes
- 2.2 Bachelor's degree from EPF Lausanne in Mechanical Engineering or Electrical Engineering and Information Technology
- 2.3 Bachelor's degree in Mechanical Engineering or Electrical Engineering and Information Technology from a university outside Switzerland

### 3 Specific stipulations for persons holding Bachelor's degrees in other Engineering disciplines or in Natural Sciences

- 3.1 University Bachelor's degree or enrolled status in an ETH Zurich Bachelor's degree programme
- 3.2 Entering the Master's degree programme

## 4 Application and admission procedure

## 5 Fulfilling additional admission requirements

### 5.1 General regulations

### 5.2 Deadlines and conditions for performance assessments

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## 1 Profile of requirements

The objective of the Master's degree programme in MTEC (subsequently 'the degree programme') is to provide students with training in Management, Technology and Economics at Master's level in addition to their qualifications in Engineering or the Natural Sciences.

### *Policy*

For admission to 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 comprising at least 180 ECTS credits<sup>(1)</sup> (credits) or an equivalent university degree in Mechanical Engineering or Electrical Engineering and Information Technology, or
- b. a university Bachelor's degree comprising at least 180 credits or an equivalent university degree in other Engineering disciplines or in Natural Sciences which – provided that any pertaining additional requirements can be completed within the set framework – satisfies the academic prerequisites listed in Section 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 require proof of a university place, and determines whether said proof must be supplied from the original 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 MTEC presupposes basic knowledge and skills in the disciplines Mathematics, Physics and Computer Science which are in content, scope, quality and level of mastery equivalent to those covered in the ETH Bachelor's degree programmes in Mechanical Engineering or Electrical Engineering and Information Technology (discipline requirements profile).

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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 a workload of 30 hours.

<sup>2</sup> The **discipline requirements profile** set out below comprises **54 credits** in total and is based on knowledge and skills covered in the ETH Bachelor's degree programmes in Mechanical Engineering or Electrical Engineering and Information Technology. 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.

<sup>5</sup> The **discipline requirements profile** is structured in the two parts set out below. Details regarding the content of these course units are published in the ETH course catalogue ([www.courses.ethz.ch](http://www.courses.ethz.ch)).

### **Part 1: Basic knowledge and skills (14 credits)**

Part 1 comprises 14 credits and covers basic knowledge in Analysis, Linear Algebra, Computer Science and Statistics.

### **Part 2: Subject-specific knowledge and skills (40 credits)**

Part 2 comprises 40 credits and covers the basic knowledge and skills from the candidate's original degree programme.

**Part 2a:** Candidates with a background in **Engineering**: 40 credits in areas of Engineering, such as: (*listed alphabetically*)

- Automatic Control Engineering
- Chemistry
- Fluid Dynamics
- Hydraulics
- Materials
- Mechanics
- Physics
- Process Engineering
- Signals and Systems Theory
- Structural Engineering
- Thermodynamics

**Part 2b:** Candidates with a background in **Natural Sciences**: 40 credits in areas surrounding the understanding, description and modelling of chemical, physical and biological processes: (*listed alphabetically*)

- Biology
- Chemistry
- Ecology
- Numerics, Algorithms, Computer Science, Differential Equations
- Physics

### 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> Any language certificates must be submitted by the time of entering the degree programme at the latest. The ETH Zurich publishes a list of the language certificates accepted.

## 2 Specific stipulations for persons holding a Bachelor's degree in Mechanical Engineering or Electrical Engineering and Information Technology

### 2.1 Bachelor's degree from ETH Zurich in Mechanical Engineering or Electrical Engineering and Information Technology, or enrolled status in one of these two programmes

#### *Admission without additional requirements*

<sup>1</sup> Holders of a Bachelor's degree from ETH Zurich in Mechanical Engineering or Electrical Engineering and Information Technology 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 in Mechanical Engineering or Electrical Engineering and Information Technology may enrol in the degree programme directly via [www.mystudies.ethz.ch](http://www.mystudies.ethz.ch) 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> The admission procedure outlined in Section 4 is dispensed with. In detail:

- 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.

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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.

<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., BSc Mechanical Engineering → MSc Mechanical Engineering).

## **2.2 Bachelor's degree from EPF Lausanne in Mechanical Engineering or Electrical Engineering and Information Technology**

### *Admission without additional requirements*

<sup>1</sup> Holders of a Bachelor's degree or equivalent qualification from EPF Lausanne in Mechanical Engineering or Electrical Engineering and Information Technology are unconditionally admitted to the degree programme.

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

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

<sup>3</sup> Candidates who have been granted admission may only enter the programme when they have completed the preceding Bachelor's degree programme.

## **2.3 Bachelor's degree in Mechanical Engineering or Electrical Engineering and Information Technology from a university outside Switzerland**

<sup>1</sup> Holders of a Bachelor's degree or the equivalent in Mechanical Engineering or Electrical Engineering and Information Technology from a university outside Switzerland must satisfy all of the academic and language prerequisites listed in Section 1 above for admission 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 have not been satisfied (see Section 1.3), or
- b. in the context of academic prerequisites (see Section 1.2):
  - 1) any credits from Part 1 of said academic prerequisites must be acquired, or
  - 2) more than 30 credits from Part 2 of said academic prerequisites must be acquired.

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

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

### **3 Specific stipulations for persons holding Bachelor's degrees in other Engineering disciplines or in Natural Sciences**

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

<sup>1</sup> If they are able to satisfy all the academic and language prerequisites set out in Section 1 within the given framework and have demonstrated very good performance in the preceding Bachelor's degree programme persons may also be admitted to the degree programme who

- a. hold a university Bachelor's degree or the equivalent in Natural Sciences or in an Engineering discipline other than Mechanical Engineering or Electrical Engineering and Information Technology; or
- b. are enrolled at ETH Zurich in a Bachelor's degree programme other than Mechanical Engineering or Electrical Engineering and Information Technology.

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

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

- a. the language or performance prerequisites cannot be fulfilled, or
- b. in the context of academic prerequisites (see Section 1.2):
  - 1) any credits from Part 1 of said academic prerequisites must be acquired, or
  - 2) more than 30 credits from Part 2 of said academic prerequisites must be acquired.

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

<sup>1</sup> To students enrolled in an ETH Zurich Bachelor's degree programme (*not Mechanical Engineering or Electrical Engineering and Information Technology*) who have been admitted to the Master's degree programme, the following applies:

- a. They may enrol in the 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>4</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 can only enter the degree programme when they have completed the preceding Bachelor's degree programme.

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<sup>4</sup> The permitted number of missing credits is set out in the Programme Regulations of the respective consecutive Master's degree programme (e.g., BSc Physics → MSc 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 Mechanical Engineering or Electrical Engineering and Information Technology – 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 not in the correct form, or
- b. any pertaining 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.

<sup>5</sup> At the request of the Director of Studies the Rector decides to admit or reject the candidate.

<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 competences 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 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 Deadlines and conditions for performance assessments

<sup>1</sup> Candidates must undertake all of the performance assessments pertaining to the additional admission requirements within one year of starting the Master's degree programme at the latest. The additional requirements, including any assessment repetitions, must be fulfilled at the latest within 18 months of starting the Master's degree programme.

<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.