

**Academic study and examination regulations  
for the master programme of the Faculty of Mechanical  
Engineering M.Sc. Renewable Energy Systems  
at the Technische Hochschule Ingolstadt from  
18 July 2016**

**in the version of the amended articles of association dated**

**29 April 2024 Preamble**

On the basis of Art. 9 sentence 1, Art. 80 para. 1 sentence 1, Art. 84 para. 2 and 3 and Art. 90 para. 1 sentence 2 of the Bavarian Higher Education Innovation Act (BayHIG) of 5 August (GVBl. p. 414, BayRS 2210-1-3-WK), as amended, the Technische Hochschule Ingolstadt issues the following statutes:

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## § 1

### **Purpose of the academic study and examination regulations**

These academic study and examination regulations serve to complete and supplement the General Examination Regulations of Technische Hochschule Ingolstadt (APO THI) dated 17 July 2023, as amended.

## § 2

### **Study objective**

- (1) <sup>1</sup>The content of the Renewable Energy Systems master's programme is essentially based on the undergraduate Bachelor's degree programme in Energy Technology and Renewable Energies at Technische Hochschule Ingolstadt and aims to provide students with an in-depth and detailed understanding of energy systems and their development. <sup>2</sup>On this basis, graduates are able to develop and apply independent ideas in practice with regard to the strategy, design, planning, development, control and management of energy systems. <sup>3</sup>Graduates have up-to-date knowledge in the fields of renewable and conventional energy technology and system analysis and are able to expand this knowledge independently in the complex subject environment. <sup>4</sup>This is achieved through the teaching of proven practical methods and the broadening of theoretical foundations and scientific working methods and opens up the possibility of a subsequent doctorate or work in research. <sup>5</sup>In addition, they can competently impart their knowledge to laypeople and exchange ideas with scientists in the production sector at a scientific level.
- (2) <sup>1</sup>The knowledge acquired on the Renewable Energy System master programme enables graduates to take on qualified specialist and management tasks in all areas of energy technology and enables them to work on or manage complex projects. <sup>2</sup>Graduates have the intercultural and communication skills required to work in an international context. <sup>3</sup>Students are thus able to organise their actions in the context of social processes critically, reflectively and with a sense of responsibility. <sup>4</sup>The Master's degree programme also gives students the opportunity to pursue a subsequent career or work in research.
- (3) The study course is conducted in English.

## § 3

### **Qualification for academic study**

- (1) <sup>1</sup>Qualification requirements for admission to the Master's programme are:
  - a) Proof of successful completion of an academic study programme in Engineering Sciences or Natural Sciences at an English university with at least 210 ECTS credit points or equivalent or an equivalent successful domestic or foreign degree,
  - b) a successfully completed aptitude test for the master programme Renewable Energy Systems according to § 4 and

- c) proof of sufficient knowledge of the English language (language level B2 of the Common European Framework of Reference for Languages).

<sup>2</sup>The requirements listed in sentence 1 a) to c) must be met cumulatively.

- (2) <sup>1</sup>For degrees without credit points, the proven hours (workload) are converted into credit points, whereby one credit point corresponds to 25 hours. <sup>2</sup>If no time hours are proven, 30 ECTS are recognised per theoretical study semester. <sup>3</sup>Practical semesters are recognised with a further 30 ECTS credits, provided that they correspond in type and scope to the practical study semester at Technische Hochschule Ingolstadt.
- (3) <sup>1</sup>Proof in accordance with para. 1 sentence 1 must be provided by the day of Enrollment at the latest. <sup>2</sup>If the proof according to para. 1 sentence 1 lit. a) is not provided by the end of the application period, a corresponding confirmation from the university must be provided by then, which credibly confirms the fulfilment of the requirement according to para. 1 sentence 1 lit. a) by the end of the enrolment period; the obligation according to sentence 1 remains unaffected.
- (4) <sup>1</sup>Applicants who can prove that they have completed a university degree or an equivalent degree for which fewer than 210 but at least 180 ECTS credits have been awarded may be admitted with the approval of the examination board if proof of the missing competences is provided with the application for admission. <sup>2</sup>The missing competences according to sentence 1 are proof of compensation for the competence gap of up to 30 ECTS credit points in addition to the qualification requirements to be proven in paragraph 1 sentence 1 lit. a) at least at Bachelor's level. <sup>3</sup>The missing competences must be proven by the end of the application period at the latest and can be proven as follows:
  - a) by providing proof of practical professional experience outside the academic study programme, which corresponds in terms of content and scope to the internship of a Bachelor degree programme in Energy Technology and Renewable Energies or an equivalent Bachelor degree programme, e.g. at the Technische Hochschule Ingolstadt, provided that the degree submitted shows deficits in the area of the practical skills to be proven compared to the qualification requirements according to para. 1 sentence 1 lit. a), or
  - b) by providing proof of practical or theoretical academic study and examination achievements in addition to the first degree from a domestic or foreign university, which correspond in terms of content and scope to the requirements of a Bachelor's degree programme in Energy Technology and Renewable Energies or an equivalent other Bachelor's degree programme, e.g. at the Technische Hochschule Ingolstadt, provided that the degree submitted shows deficits in the area of the theoretical or practical competences to be proven compared to the qualification requirements according to para. 1 sentence 1 lit. a).
- (5) The examination board decides on the equivalence according to para. 1 sentence 1 lit. a) and para. 4 as well as on the conversion according to para. 2, taking into account the principles of Art. 86 para. 1 BayHIG.
- (6) If an applicant is not admitted, he or she will be informed in writing, stating the reasons.

## **§ 4**

### **Aptitude test**

- (1) The prerequisite for participation in the aptitude test is an application in due form and time and proof of the qualification requirements in accordance with § 3.
- (2) <sup>1</sup>A committee consisting of six full-time professors is formed to carry out the aptitude test. <sup>2</sup>The committee is appointed by the Faculty Council.
- (3) <sup>1</sup>Criteria for passing the aptitude test are:
  - a) 60 % Grade of the first degree
  - b) 40 % Assessment of specific aptitude and experience in the competence field of energy technology, which is measured on the basis of work experience in the field of energy technology or fields related to energy technology (max. 20 points;); internships and theses in the field of energy technology are also counted as work experience.

<sup>2</sup>The assessment of specific aptitude and experience in the competence field of energy technology is carried out on the following basis:

  - 20-16 points: Grade 1.0
  - 15-11 points: Grade 2.0
  - 10-6 points: Grade 3.0
  - 5-1 points: Grade 4.0
  - 0 points: Grade 5.0

<sup>3</sup>Aptitude is deemed to have been established if the aptitude test is assessed with an overall grade of at least "good" (2.5). <sup>4</sup>The grade levels of § 24 APO THI apply accordingly for the assessment.
- (4) <sup>1</sup>The applicant will be informed of the result of the aptitude test in writing at least two weeks before the Start of studies. <sup>2</sup>Rejection notices must be substantiated and include information on legal remedies.
- (5) If the applicant fails the aptitude test, he/she may apply again at the earliest at the next year's deadline.

## **§ 5**

### **Type and duration of the study course**

- (1) The study course is run as a consecutive degree programme (full-time study).
- (2) <sup>1</sup>The study course comprises a standard period of study of three theoretical semesters with a workload of 90 ECTS. <sup>2</sup>The Master's Thesis should also be completed during this standard period of study.
- (3) <sup>1</sup>The university can also offer its courses offered with the support of virtual course types. <sup>2</sup>Further details are set out in the module handbook.

## **§ 6**

### **Credit points**

<sup>1</sup>Credit points are awarded in accordance with the European Credit Transfer System (ECTS) for examinations passed and degree-related performance assessments per module. <sup>2</sup>As a rule, a maximum of 60 credit points are awarded per academic year. <sup>3</sup>One credit point corresponds to a study load of 25 hours, which is made up of attendance courses and distance learning phases. <sup>4</sup>The number of credit points can be found in the appendix to these study and examination regulations.

## **§ 7**

### **Modules and evidence of academic achievement**

- (1) The modules, their number of hours, the type of lectures, the examinations, the degree-related performance assessments and further provisions are set out in the annex.
- (2) Lectures and examinations are held in English.
- (3) All modules are either compulsory or elective modules:
  1. Compulsory modules are the modules of the study course that must be completed by all students.
  2. <sup>1</sup>Elective modules are the modules of the study course that are offered individually or in groups as an alternative. <sup>2</sup>Each student must make a specific selection from among them in accordance with these regulations. <sup>3</sup>The selected modules are treated as compulsory modules.
- (4) Selected modules, including examinations and/or evidence of academic achievement, may be held in English as specified in the module handbook.
- (5) <sup>1</sup>There is no entitlement to the Master's programme being offered if the number of qualified students is insufficient. <sup>2</sup>There is also no entitlement to all modules being offered in every semester.

## **§ 8**

### **Module Handbook**

- (1) <sup>1</sup>To ensure the courses offered and to inform students, the responsible faculty draws up a module handbook detailing the academic study programme. <sup>2</sup>The module handbook is approved by the responsible faculty council and must be publicised at the university. <sup>3</sup>The publication of new regulations must take place at the latest at the beginning of the lecture period of the semester in which the regulations are to be applied for the first time.
- (2) In particular, the module handbook contains regulations and information on
  1. the distribution of weekly semester hours per module and study semester,
  2. the catalogue of selectable elective modules with the names of the modules and their number of weekly semester hours,
  3. more detailed provisions on course-related performance and participation certificates,

4. the form and organisation of lectures,
5. the course type in the individual modules, insofar as it has not been conclusively defined in the annex,
6. the study objectives (learning outcomes) and content of the individual modules,
7. more detailed provisions on the type and scope of the module examinations, insofar as these have not been conclusively defined in the annex,
8. more detailed provisions for lectures offered via new media,
9. the language of instruction and examination in the individual modules, insofar as this is not in English.

## **§ 9**

### **Master's Thesis**

- (1) In the Master's Thesis, students should demonstrate their ability to apply the knowledge acquired during degree studies to complex practical tasks in an independent scientific work.
- (2) <sup>1</sup>The topic of the Master's Thesis is issued at the beginning of the second academic study semester at the earliest.<sup>2</sup> The issue of the topic of the Master's Thesis requires that at least 30 ECTS credits have been successfully completed.
- (3) The Master's Thesis takes six months to complete.
- (4) In all other respects, the regulations of the APO THI apply to the thesis.
- (5) The Master's Thesis can be written in English or German.

## **§ 10**

### **Assessment of performance, overall examination grade**

The overall examination grade is calculated by weighting the individual grades in accordance with the appendix.

## **§ 11**

### **Master's examination certificate**

- (1) <sup>1</sup>A certificate of successful completion of the Master's examination is issued in accordance with the specimen contained in the annex to the APO THI. <sup>2</sup>The sample certificate is specified in accordance with these academic study and examination regulations.
- (2) A Diploma Supplement is issued together with the certificate for the passed Master's examination in accordance with the sample contained in the APO THI.

**§ 12**  
**Academic degree**

- (1) Upon successful completion of the Master's examination, the academic degree "Master of Science", abbreviated to "M.Sc.", is awarded by Technische Hochschule Ingolstadt.
- (2) A certificate is issued for the award of the academic degree in accordance with the sample contained in the annex to the APO THI.

**§ 13**  
**Entry into force**

<sup>1</sup>These academic study and examination regulations come into force on 1 March 2017. <sup>2</sup>They apply to all students who begin their academic studies on this study course in the first semester from the winter semester 2017/2018.

Issued on the basis of the resolution of the Senate of Technische Hochschule Ingolstadt of 18 July 2016, the resolution of the University Council of 15 November 2016 and the approval of the Bavarian State Ministry of Education & Culture, Science and the Arts, StmBW of 24 February 2017, Ref.: VIII.5-H3441.IN/43/11 and approved by the President.

Ingolstadt, 13/03/2017

Prof Dr Walter Schober President

The Articles of Association were deposited at Technische Hochschule Ingolstadt on 14 March 2017. The filing was announced on 14 March 2017 by means of a notice. The date of announcement is therefore 14/03/2017.