

**Legible version**

**Only the officially published version is binding**

**Study and Examination Regulations  
for the Master's degree programme in  
Advanced Industrial Engineering  
at Rosenheim Technical University of Applied Sciences**

**of 30 May 2023**

**Legible version**

**In the version of the 1st amended rules of 21 February 2024**

On the basis of Article 9 Sentence 1 in conjunction with Article 80 (1) Sentence 1, Article 84 (2) Sentence 1, and Article 90 (1) Sentence 2 of the Bavarian Higher Education Innovation Act (BayHIG), Rosenheim Technical University of Applied Sciences issues the following rules:

**Section 1**

**Purpose of the study and examination regulations**

These study and examination regulations serve as a supplement to the current version of the General Examination Regulations of Rosenheim Technical University of Applied Sciences (*Allgemeine Prüfungsordnung der Technical Hochschule Rosenheim – APO*) of 9 August 2023.

**Section 2**

**Study objectives**

- (1) The Master's Degree Programme in Advanced Industrial Engineering (M. Sc.) is devised as an application-focused, consecutive course. It aims to provide students with advanced and specialist knowledge in the technical/business field and related areas with a scientific foundation, especially interdisciplinary knowledge.
- (2) The aim of the degree programme is to train for a globalised world with a strong intercultural understanding and an international perspective. In principle, this orientation is implemented through English-language courses and thus addresses an international target audience.
- (3) In addition to technical and methodological knowledge, the degree programme particularly imparts social skills for both socially responsible as well as independent and responsible action. Students are put in a position in which they are able to shape their actions in the context of social processes in a critical and reflective manner, with a sense of responsibility.
- (4) The practical relevance is guaranteed beyond working on projects by a scientific Master's thesis.
- (5) The degree programme prepares students for management and expert tasks in various professions in internationally active commercial enterprises, in the public sector and in self-employed activities. The Master's programme also opens up the possibility for students to subsequently pursue a doctoral degree or work in research.
- (6) Particular attention is paid to the topics of digitalisation, sustainability and internationalisation.

### **Section 3**

#### **Admission requirements**

- (1) Admission to the Master's degree programme requires a Bachelor's degree in Management and Engineering, an equivalent technical/economic degree or an equivalent qualification obtained in Germany or abroad. An overall grade of 2,0 or higher is required.
- (2) The Examination Committee shall decide on the equivalence and relevance of qualifications required for admission and the fulfilment of other admission requirements.
- (3) If applicants submit proof of a qualification required for admission that is worth less than 210 ECTS credit points but at least 180 ECTS credit points or equivalent, they must acquire the missing credit points from relevant undergraduate courses at Rosenheim Technical University of Applied Sciences. On admission, the Examination Committee shall determine which courses and examinations need to be taken in the individual case. Catch-up examinations must be taken before the Master's thesis is issued. Section 22 of the APO at Rosenheim Technical University of Applied Sciences applies accordingly to opportunities to resit failed examinations.
- (4) Admission to the English-language degree programme requires level B2 English language skills under the Common European Framework of Reference for Languages (CEFR) in accordance with Section 3 (1) of the rules for regulating language admission requirements for university studies at Rosenheim Technical University of Applied Sciences.
- (5) In deviation from Section 3 (2) of the rules for regulating language admission requirements for university studies at Rosenheim Technical University of Applied Sciences, applicants for the Master's degree programme in Advanced Industrial Engineering are not required to submit proof of adequate German language skills.

### **Section 4**

#### **Course structure**

- (1) The Master's degree programme covers a standard period of study of three semesters of full-time study or a maximum of six semesters of part-time study. It includes a practical project (Master Case Study) as well as a Master's thesis.
- (2) Framework conditions for the Master Case Study:
  1. The Master Case Study is carried out within the framework of a relevant practical activity.
  2. This Master Case Study is completed with a project report/management report and submitted to the Examination Committee for evaluation.
  3. The result is "passed" or "failed" and is not included in the overall grade.
  4. The Master Case study topic can only be issued once the student has completed at least 30 ECTS credits in the Master's degree programme, at the earliest.

### **Section 5**

#### **Modules and examinations**

The modules, their number of hours, ECTS credit points, type of lecture as well as type and scope of examinations are set out in the Appendix to these rules. The regulations defined in these rules are supplemented by the study plan.

### **Section 6**

#### **Study plan**

- (1) The Faculty of Business Administration produces a study plan detailing the course structure for the students' information and to ensure compliance with the curriculum. It is approved by the Faculty Council and is published within the university. New regulations must be published at the latest at the start of the semester in which the regulations come into force for the first time. In particular, the study plan includes regulations and information on

1. the objectives, content, hours per week per semester, ECTS credit points and types of lecture used in individual modules, if this is not regulated conclusively in these rules, and, in particular, a list of current required elective modules, including conditions and restrictions regarding student numbers.

2. more detailed conditions relating to examinations, certificates of attendance and admission requirements.

(2) No assertion is made that all required elective modules shall actually be available. Equally, no assertion is made that associated lectures shall be conducted if there are insufficient attendees. The Examination Committee can also set requirements for attendance as well as maximum numbers of attendees for certain lectures.

## **Section 7 Master's thesis**

(1) Students may apply for the topic for their Master's thesis to be issued at the earliest after achieving at least 45 ECTS credit points.

(2) Full-time students have six months to complete the Master's thesis and part-time students have a maximum of twelve months.

(3) The Master's thesis is assessed and graded by two examiners. At least one of these two examiners should be a full-time professor at the Faculty of Management and Engineering at Rosenheim Technical University of Applied Sciences.

(4) The Master's thesis may be written in German or English. A summary in both German and English must be included, however.

## **Section 8 Academic Advising**

If students do not obtain at least 30 ECTS credit points after two semesters of full-time study, or four semesters of part-time study, they are required to seek assistance from Academic Advising by order of the Examination Committee.

## **Section 9 Examination Committee**

The Examination Committee comprises at least three professors from the Faculty of Management and Engineering at Rosenheim Technical University of Applied Sciences.

## **Section 10 Overall examination grade**

The overall examination grade is the arithmetic average of significant individual grades weighted with ECTS credit points, rounded off to one decimal point.

## **Section 11 Academic title**

On passing the Master's examination, the student shall be awarded the academic title of "Master of Science", or "M.Sc." for short.

## **Section 12 Effective date\*), transitional regulations**

(1) These study and examination regulations come into force on 1 October 2023. They apply to students enrolling in the 2023/2024 winter semester.

\*This provision relates to the effective date of the rules in the original version dated 30 May 2023. The date on which the amendments enter into force is set out in the amended rules. The regulations in the 1st amended rules are valid for the application procedure for starting studies in the winter semester 2024/25.

# Anlage zur Studien- und Prüfungsordnung für den Masterstudiengang Advanced Industrial Engineering an der Technischen Hochschule Rosenheim

Appendix to the study and examination regulations for the Master's degree programme in Advanced Industrial Engineering at Rosenheim Technical University of Applied Sciences.

## 1. Theoretische Studiensemester (Theoretical semester)

| Modul Nr.<br><i>Module no.</i> | Modulbezeichnung<br><i>Modules</i>                              | Leistungspunkte<br><i>ECTS</i> | Art der Lehrveranstaltung<br>1)<br><i>Form of Course</i> | Prüfungen<br><i>Examinations</i><br>1) 2) 3) 4)     |                                     | Ergänzende Regelungen<br>1)<br><i>Supplementary regulations</i> |
|--------------------------------|---|--------------------------------|--|---|-------------------------------------|---|
|                                |   |                                |  | Art u. Dauer in Minuten<br><i>Type and Duration</i> | ZV<br><i>admission requirements</i> |   |
| 1                              | Modulgruppe "Engineering"                                       | 15                             | SU, Ü, Pr  | P   | ZV möglich/<br>possible             |   |
| 2                              | Modulgruppe "Management Skills"                                 | 10                             | SU, Ü, Pr  | P   | ZV möglich/<br>possible             |   |
| 3                              | Modulgruppe "Sustainability"                                    | 10                             | SU, Ü, Pr  | P   | ZV möglich/<br>possible             |   |
| 4                              | Modulgruppe "Digital Transformation"                            | 10                             | SU, Ü, Pr  | P   | ZV möglich/<br>possible             |   |
| 5                              | Modulgruppe FWPM<br><i>Specialist required Elective Courses</i> | 10                             | SU, Ü, Pr  | P   | -                                   | 4), 5)  |
| 6                              | Scientific Working  | 5                              | SU, Ü, Pr  | P   | -                                   |   |
| 7                              | Master Case Study   | 5                              | Pr   | PStA  | 30 CP                               | 6)  |
| 8                              | Masterarbeit<br><i>Master's Thesis</i>                          | 25                             | MA   | MA  | 45 CP                               |   |
|                                |   | <b>90</b>                      |  |   |                                     |   |

- 1) The Faculty Council sets out the details in the study plan.
- 2) A minimum grade of "sufficient" for all significant examinations is required to successfully complete the programme.
- 3) Submission on time is necessary to pass.
- 4) Individual details will be announced with the examination notice at the start of the semester.
- 5) The catalogue of specialist required elective modules is determined by the Faculty Council for each semester according to the criteria in Section 5, and set out in the study plan at the start of each semester.
- 6) The prerequisite for issuing the topic for the Master Case Study is the fulfilment of the requirements from Section 4. No marks which are used to form the final grade are awarded in this module; the module must be completed with "passed".

## 2. Erklärung der Abkürzungen (*Abbreviations*):

|       |   |   |
|-------|---|---|
| ECTS  | = | European Credit Transfer System   |
| FWPM  | = | Fachbezogenes / fachwissenschaftliches Wahlpflichtmodul<br><i>Subject-related or specialist required elective module</i>                              |
| MA    | = | Masterarbeit <i>Master's thesis</i>   |
| mdIP  | = | mündliche Prüfung <i>oral examination</i>   |
| P     | = | Prüfungen <i>examination</i>  |
| Pr    | = | Praktikum <i>work experience</i>  |
| prP   | = | praktische Prüfung <i>practical examination</i>   |
| PStA  | = | Prüfungsstudienarbeit <i>coursework (such as a work experience report, or a colloquium for group work with an additional, individual examination)</i> |
| schrP | = | schriftliche Prüfung <i>written examination</i>   |
| SU    | = | Seminaristischer Unterricht <i>seminar-based lectures</i>   |
| SWS   | = | Semesterwochenstunden <i>hours per week per semester</i>  |
| Ü     | = | Übung <i>practical exercise</i>   |
| ZV    | = | Zulassungsvoraussetzung <i>admission requirement</i>  |