

**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

On the basis of Art. 9, Sentence 1, Art. 80, Para. 1, Art. 84, Para. 2, Sentence 1, Art. 96, Para. 1 of the Bavarian Higher Education Innovation Act (BayHIG) of 5 August 2022, Rosenheim University of Applied Sciences enacts the following statutes:

Section 1

Purpose of the study and examination regulations

These study and examination regulations serve as a supplement to the current versions of the Basic Examination Regulations for Universities of Applied Sciences in Bavaria (*Rahmenprüfungsordnung für die Fachhochschulen in Bayern – RaPO*) of 17 October 2001 and the General Examination Regulations of Rosenheim Technical University of Applied Sciences (*Allgemeine Prüfungsordnung der Technical Hochschule Rosenheim – APO*) of 2 August 2016.

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. This orientation is implemented through exclusively English-language courses and thus addressing 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 engineering degree or an equivalent qualification obtained in Germany or abroad. An overall grade of "good" 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 19 of the General Examination Regulations of Rosenheim Technical University of Applied Sciences (APO) applies accordingly to opportunities to resit failed examinations.

(4) Admission to the degree programme requires level B2 English language skills under the Common European Framework of Reference for Languages (CEFR). These can be evidenced by:

1. Internet-based TOEFL with 72 or more points,
2. IELTS with a band score of 6.0 or higher,
3. Cambridge CEFR B2 First (FCE), Grade C or higher,
4. Cambridge CEFR C1 Advanced (CAE) with level B2 or higher,
5. At least 6 years of English tuition at school with a minimum grade of "satisfactory" in the final year, evidenced by a German higher education entrance qualification or an equivalent recognised higher education entrance qualification from a non-German school.

Native English speakers are not required to submit proof of adequate English language skills. In cases of doubt or non-submission of proof, applicants may be required additionally/alternatively to pass a language test comparable to those listed above at the TH Rosenheim.

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 topic of the Master Case Study can be issued at the earliest when the student has achieved at least 30 credit points in the Master's degree programme.

Section 5

Modules and examinations

The modules, their number of hours, 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 Management and Engineering 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. Objectives, content, hours per week per semester, 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 and 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) A student may apply for the topic for his/her Master's thesis to be issued at the earliest after achieving at least 45 ECTS credit points.
- (2) Full-time students have 6 months to complete the Master's thesis and part-time students have a maximum of 12 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 German must be included, however.

Section 8

Academic Advising

If students do not obtain at least 30 credit points after two / four [part-time study] semesters, 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 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 winter semester 2023/2024. They also apply to students who started their studies before this semester, but postponed or delayed their degree (e.g. by a leave of absence, interrupted studies, not achieving the conditions required to move on for the first or second semester) which resulted in a range of courses which complied with the previous study and examination regulations no longer being available when they continued their studies.

Issued on the basis of the resolution by the Senate of Rosenheim Technical University of Applied Sciences of 26. April 2023 and the approval of the President of Rosenheim Technical University of Applied Sciences.

Rosenheim, dated 30 May 2023

Prof. Heinrich Köster
President

These rules were laid down on 30 May 2023 at Rosenheim Technical University of Applied Sciences. This was published within the university on 30 May 2023. The publication date is therefore 30 May 2023.

Anlage zur Studien- und Prüfungsordnung für den Masterstudiengang 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. No | Modulbezeichnung <i>Modules</i> | Leistungs- punkte <i>ECTS</i> | Art der Lehrver- anstaltung 1) <i>Type of course</i> | Prüfungen <i>Examinations</i> 1) 2) 3) 4) | | Ergänzende Regelungen 1) <i>Supplementary regulations</i> |
|--------------------|---|-------------------------------------|--|---|----------|--|
| | | | | Art u. Dauer in Minuten <i>Type and duration in minutes</i> | ZV | |
| 1 | Modulgruppe "Engineering" | 15 | SU, Ü, Pr | P | - | |
| 2 | Modulgruppe "Management Skills" | 10 | SU, Ü, Pr | P | - | |
| 3 | Modulgruppe "Sustainability" | 10 | SU, Ü, Pr | P | - | |
| 4 | Modulgruppe "Digital Transformation" | 10 | SU, Ü, Pr | P | - | |
| 5 | Modulgruppe FWPM <i>Specialist required elective modules</i> | 10 | SU, Ü, Pr | P | - | 4), 5) |
| 6 | Scientific Working | 5 | SU, Ü, Pr | schrP 60-180 / PStA u. mdlP | - | |
| 7 | Master Case Study | 5 | Pr | PStA | 30 CP | 6) |
| 8 | Masterarbeit <i>Master's Thesis</i> | 25 | MA | MA | 45 CP | |
| | | 90 | | | | |

- 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 Wahlpflichtmodul <i>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 requirements</i> |