

**Study and examination regulations
for the Bachelor's degree programme
International Bachelor of Engineering
at the Burghausen campus
at Rosenheim Technical University of Applied Sciences**

of 21 June 2022

On the basis of Article 13 (1) Sentence 2, Art. 57 (1) Sentence 1, Art. 58, Art. 61 (2) Sentence 1 and (8) Sentence 2, and Art. 66 (1) Sentence 1 of the Bavarian Higher Education Act (BayHSchG), 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 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 aim of the International Bachelor of Engineering is to train its students through application-oriented teaching based on scientific findings and methods. Graduates will be capable of professional independent work as engineers.

(2) The degree programme combines the basic principles of scientific mathematics, chemistry and process engineering with one of three choices of specialisation. Depending on the choice of specialisation, students focus on one of the following areas: Chemical Engineering, Process Automation Systems or Environmental Technology. Specialisation in Chemical Engineering combines applied process engineering, general and chemical engineering. Specialisation in Process Automation Systems focuses on computer science and automation technology, including digitalisation and security. Specialisation in Environmental Technology focuses on environmental protection, recycling and sustainable process technologies. The course particularly focuses on the fields of the circular economy, sustainability along the entire value creation chain and the efficient use of resources.

(3) The degree programme will enable graduates to work as engineers in a variety of professions, depending on their chosen specialisation, in companies, in the public service or as freelancers, in an advisory, planning or expert capacity.

**Section 3
Admission requirements**

(1) 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 a certified English or German

translation of an equivalent higher education entrance qualification from a non-German school. Certificates in English do not need translating.

Native English speaking applicants 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 Rosenheim Technical University of Applied Sciences.

(2) Non-German native speakers without a German higher education entrance qualification must provide proof of German language skills at level A2 or higher in accordance with CEFR. The following apply as proof of required German language skills:

1. Deutsches Sprachdiplom DSD level 1 (level CEFR A2/B1),
2. Goethe certificate at level A2,
3. TELC certificate at level A2,
4. German language courses completed at a university worth at least 4 credit points at level A2 or higher in accordance with CEFR,
5. At least 3 years of German tuition at school, evidenced by a translation of school certificates into German or English.

(3) The Examination Committee shall decide whether the admission requirements are met.

Section 4

Course structure

(1) The standard period of study for the Bachelor's degree programme is eight semesters. This includes seven theoretical semesters and one practical semester. The practical semester takes place in the 6th semester.

(2) Examinations in the modules "Mathematics 1" and "Technical Physics" must be taken by the end of the second semester. If students miss this deadline for reasons for which they are responsible, the examinations shall be considered taken for the first time and failed. Only those students who have achieved the following are entitled to start the fourth semester and continue with further studies:

- at least 25 credit points from the subject-specific study basics in the sense of No. 2 in the Appendix, and
- at least 20 credit points from the "German as a foreign language" modules in the sense of No. 1 in the Appendix

Students must decide on one of the following areas of specialisation at the end of the second semester at the latest:

- Chemical Engineering
- Process Automation Systems
- Environmental Technology.

This choice can be changed subject to approval by the Examination Committee.

(4) The degree programme includes a Bachelor's thesis.

(5) The teaching language in the first and second semester is English. As from the third semester, lectures can also be offered in German.

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 Chemical Technology and Economics 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. Objectives and content of the practical semester and the parallel lecture course as well as the form, organisation and number of credit points.
3. More detailed conditions relating to examinations, the language of examinations, certificates of attendance and admission requirements.
4. Allocation of the modules to specialist fields.

(2) No assertion is made that all specialist fields, 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

Practical semesters

(1) The practical semester comprises a supervised work experience-based practical period of 18 weeks to be spent at a relevant company. The practical semester is supplemented by parallel lectures and ends with an examination. Details are set out in the study plan.

(2) The practical semester is considered successfully completed if the individual practical periods covering the required content are evidenced by a certificate from the place of training based on the template provided by Rosenheim Technical University of Applied Sciences, a valid practical report is submitted on time and is graded as passed by a supervisor.

Section 8

Bachelor's thesis

(1) Students must successfully complete their practical semester in order to request a topic for a Bachelor's thesis.

(2) The Bachelor's thesis must be submitted at the latest 5 months after the topic is issued.

(3) The Bachelor'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 Chemical Technology and Economics.

(4) The Bachelor's thesis may be written in German or, upon application, also in English. A summary in German and English must be included, however.

Section 9

Academic Advising

If a student does not obtain at least 25 credit points after two semesters, he or she must seek assistance from Academic Advising.

Section 10 Examination Committee

The Examination Committee consists of at least three professors from the Faculty of Chemical Technology and Economics.

Section 11 Overall examination grade

- (1) The overall examination grade is the arithmetic average of significant individual grades weighted with credit points, rounded off to one decimal point. Ungraded practical periods are not considered.
- (2) The area of specialisation is mentioned on the certificate.

Section 12 Academic title

(1) On passing the Bachelor's examination, the student shall be awarded the academic title of "Bachelor of Engineering", in short: "B.Eng."

Section 13 Effective date, transitional regulations

These study and examination regulations come into force on 15 March 2023.

Issued on the basis of the resolution by the Senate of Rosenheim Technical University of Applied Sciences of 1 June 2022 and the approval of the President of Rosenheim Technical University of Applied Sciences.

Rosenheim, 21 June 2022
Represented by

Oliver Heller
Chancellor

These rules were laid down on 21 June 2022 at Rosenheim Technical University of Applied Sciences. This was published within the university on 21 June 2022. The publication date is therefore 21 June 2022.

Anlage zur Studien- und Prüfungsordnung für den Bachelorstudiengang International Bachelor of Engineering an der Technischen Hochschule Rosenheim

Appendix to the study and examination regulations for the Bachelor's degree programme International Bachelor of Engineering at Rosenheim Technical University of Applied Sciences.

1. Sprachliche Studiengrundlagen

Language study basics

Modul Nr. Module no.	Modulbezeichnung Modules	SWS / Hours per week	Leistungs- punkte ECTS	Art der Lehrver- anstaltung 1) Type of course	Prüfungen Examinations 1) 2)		Ergänzende Regelungen 1) Supplementary regulations
					Art u. Dauer in Minuten Type and duration in minutes	ZV	
IBB 1	Deutsch B1.1 German B1.1	4	5	SU	schrP 60-180 oder/or PStA		
IBB 2	Deutsch B1.2 German B1.2	4	5	SU	schrP 60-180 oder/or PStA		
IBB 3	Deutsch B2.1 German B2.1	4	5	SU	schrP 60-180 oder/or PStA		
IBB 4	Deutsch B2.2 German B2.2	4	5	SU	schrP 60-180 oder/or PStA		
IBB 5	Technisches Deutsch 1 Technical German 1	4	5	SU	schrP 60-180 oder/or PStA		
IBB 6	Technisches Deutsch 2 Technical German 2	4	5	SU	schrP 60-180 oder/or PStA		
			30				

2. Fachliche Studiengrundlagen

Subject-specific study basics

Modul Nr. Module no.	Modulbezeichnung Modules	SWS / Hours per week	Leistungs- punkte ECTS	Art der Lehrver- anstaltung 1) Type of course	Prüfungen Examinations 1) 2)		Ergänzende Regelungen 1) Supplementary regulations
					Art u. Dauer in Minuten Type and duration in minutes	ZV	
IBB 7	Mathematik 1 Mathematics 1	5	5	SU, Ü	schrP 60-180	-	
IBB 8	Angewandte Informatik Applied Informatics	4	5		schrP 60-180	6)	
IBB 9	Technische Physik Technical Physics	4	5		schrP 60-180	6)	
IBB 10	Technische Mechanik Technical Mechanics	5	5		schrP 60-180		
IBB 11	Mathematik 2 Mathematics 2	5	5		schrP 60-180		
IBB 12	Apparatebau Apparatus Design and Engineering	5	5		schrP 60-180	6)	
IBB 13	Chemie Grundlagen General Chemistry	5	5		schrP 60-180	6)	
IBB 14	Physikalische Chemie Physical Chemistry	5	5	SU, Ü	schrP 60-180		

Modul Nr. <i>Module no.</i>	Modulbezeichnung <i>Modules</i>	SWS / Hours per week	Leistungs- punkte <i>ECTS</i>	Art der Lehrver- anstaltung 1) <i>Type of course</i>	Prüfungen Examinations 1) 2)		Ergänzende Regelungen 1) <i>Supplementary regulations</i>
					Art u. Dauer in Minuten <i>Type and duration in minutes</i>	ZV	
IBB 15	Wärme- und Stoffaustausch <i>Heat- and Mass Transfer Processes</i>	4	5	SU, Pr	schrP 60-180	6)	
IBB 16	Messtechnik <i>Measurement Technology</i>	4	5	SU, Pr	schrP 60-180	6)	
IBB 17	Arbeitssicherheit <i>Occupational Safety</i>	2	2	SU, Pr	schrP 60-180	6)	
IBB 18	Wahlpflichtmodulgruppe 1 <i>Elective Module Group 1</i>	5	5	SU, Pr	schrP 60-180		4)
IBB 19	Wahlpflichtmodulgruppe 2 <i>Elective Module Group 2</i>	2	3	SU, Pr	schrP 60-180		4)
			60				

3. Studienschwerpunkte

Specialisation options

Modul Nr. <i>Module no.</i>	Modulbezeichnung <i>Modules</i>	SWS / Hours per week	Leistungs- punkte <i>ECTS</i>	Art der Lehrver- anstaltung 1) <i>Type of course</i>	Prüfungen Examinations 1) 2)		Ergänzende Regelungen 1) 7) <i>Supplementary regulations</i>
					Art u. Dauer in Minuten <i>Type and duration in minutes</i>	ZV	
IBB-CI	Module des Studiengangs Chemieingenieurwesen <i>Modules of the degree programme Chemical Engineering</i>	-	110	SU, Ü, Pr	P	6)	5)
IBB-PT	Module des Studiengangs Prozessautomatisierungstechnik <i>Modules of the degree programme Process Automation Technology</i>	-	110	SU, Ü, Pr	P	6)	5)
IBB-UT	Module des Studiengangs Umwelttechnologie <i>Modules of the degree programme Environmental Technology</i>	-	110	SU, Ü, Pr	P	6)	5)
BA	Bachelorarbeit <i>Bachelor's Thesis</i>	-	10	BA	BA		
			120				

4. Praktisches Studiensemester / Praxisphasen

Practical Phase

Modul Nr. <i>Module no.</i>	Modulbezeichnung <i>Modules</i>	SWS / Hours per week	Leistungs- punkte <i>ECTS</i>	Art der Lehrver- anstaltung 1) <i>Type of course</i>	Prüfungen Examinations 1) 2)		Ergänzende Regelungen 1) <i>Supplementary regulations</i>
					Art u. Dauer in Minuten <i>Type and duration in minutes</i>	ZV	
SP	Praxisphase <i>Practical Study Phase</i>	-	25	Pr	PB		3)
IBB- PVL	Praxisbegleitende Lehrveranstaltung <i>Supporting Course to the Practical Study Phase</i>	4	5	SU	schrP 60-180 oder/or PStA oder/or PB oder/or SV oder/or mdIP		3)
		4	30				

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) The catalogue of specialist required elective modules is determined by the Faculty Council for each semester according to the criteria in Section 6, and set out in the study plan at the start of each semester.

5) Midterm examinations (MTP): Additional examinations can be taken voluntarily, which can ultimately be formed into a final module grade (in accordance with the specified weighting). These must be bindingly taken by the end of the registration period for examinations.

6) The admission requirement for the examination is successful completion of the internship with a certificate (proof of achievement with a pass (LNmE)).

7) The catalogue of specialisation subjects is determined by the Faculty Council for each semester according to the criteria in Section 6, and set out in the study plan at the start of each semester.

5. Erklärung der Abkürzungen (Abbreviations):

AWPM	=	Allgemeinwissenschaftliches Wahlpflichtmodul <i>general required elective module</i>
BA	=	Bachelorarbeit <i>Bachelor's thesis</i>
CI	=	Chemieingenieurwesen <i>Chemical Engineering</i>
ECTS	=	European Credit Transfer System
eIP	=	elektronische Prüfung <i>electronic examination</i>
Ex	=	Exkursion <i>field trip</i>
FWPM	=	Fachbezogenes Wahlpflichtmodul <i>specialist required elective module</i>
Kol	=	Kolloquium <i>colloquium</i>
mdIP	=	mündliche Prüfung <i>oral examination</i>
mE	=	mit Erfolg abgelegt <i>pass</i>
P	=	Prüfungen <i>examinations</i>
PA	=	Projektarbeit <i>project work</i>
PB	=	Praxisbericht <i>practical report</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>
PT	=	Prozessautomatisierungstechnik <i>Process Automation Systems</i>
S	=	Seminar <i>seminar</i>
schrP	=	schriftliche Prüfung <i>written examination</i>
SU	=	Seminaristischer Unterricht <i>seminar-based lectures</i>
SV	=	Seminarvortrag <i>seminar presentation</i>
SWS	=	Semesterwochenstunden <i>hours per week per semester</i>
TN	=	Teilnahmenachweis <i>attendance certificate</i>
Ü	=	Übung <i>practical exercise</i>
UT	=	Umwelttechnologie <i>Environmental Technology</i>
V	=	Vorlesung <i>lecture</i>
ZV	=	Zulassungsvoraussetzung <i>admission requirements.</i>