



Study and examination regulations for the Bachelor programme International Computer Science at the Ostbayerische Technische Hochschule Regensburg

Please note: this English version is not a legally binding document, only the German version is legally binding.

From 17 April 2023

On the basis of Art. 9 sentence 1, Art. 80 para. 1 sentence 1, Art. 84 para. 2 sentence 1 and Art. 88 para. 4 sentence 1 of the Bavarian Higher Education Innovation Act (BayHIG) of 5 August 2022 (GVBl. p. 414, BayRS 2210- 1-3-WK), as amended, the Ostbayerische Technische Hochschule Regensburg (university) issues the following statutes:

§ 1

Purpose of the study and examination regulations

These study and examination regulations serve to complete and supplement the General Examination Regulations of the Ostbayerische Technische Hochschule Regensburg (APO) of 21 August 2014 in the currently valid version.

§ 2

Study objective

- (1) ¹Students on the Bachelor's degree programme in International Computer Science acquire broad and integrated knowledge, including the scientific foundations in the fields of computer science and mathematics. ²With this knowledge, they develop a critical understanding of the most important theories and methods and can apply and further develop these in a wide range of application areas and industries.
- (2) ¹Graduates have broad methodological competence and key technical skills, enabling them to analyse problems arising from specific practical issues in a system-oriented manner, to design and implement information technology systems according to the state of the art and science and to integrate them into a system environment. ²They are able to develop new solutions and to assess the solutions developed, taking into account different standards and frequently changing requirements.
- (3) Graduates are able to work productively in an international working environment and have the corresponding international competences. After completing the degree programme, they will be able to work effectively in distributed virtual teams and will be able to design, develop, integrate and maintain multilingual and international information technology systems professionally.
- (4) ¹Students can assume responsibility in a team. ²At the end of their degree programme, they will have gained team experience and communication skills, which will enable them to present complex technical problems and solutions to experts in German and English and, if necessary, in another foreign language and to develop them further.

- (5) ¹Graduates of the degree programme are able to work scientifically and can analyse and reflect on work processes. ²This enables them to recognise the effects of computer science on the environment and society and to take safety, technical, economic and legal requirements into account. ³With the learning and working techniques they have acquired, they are able to independently organise lifelong learning processes.
- (6) The skills acquired qualify students to take on simple management tasks and serve as a basis for further academic qualification as part of a Master's degree programme.

§ 3

Qualification requirements

- (1) Applicants must be qualified to study at state universities of applied sciences in Bavaria in accordance with the Qualifications Ordinance (QualV) as amended.
- (2) Applicants must provide proof of English language proficiency at level B1 of the Common European Framework of Reference for Languages (CEFR).
- (3) ¹The alternative form of dual study programme is possible for individual students. ²For this, the student must provide evidence of a contractual relationship with a company or corresponding institution authorised by the university.

§ 4

Programme structure, standard period of study

- (1) ¹The degree programme comprises a standard period of study of seven semesters, six theoretical semesters and one practical semester. ²It is divided into three study sections: the first study section (1st and 2nd semesters), the second study section (3rd to 5th semesters) and the third study section (6th and 7th semesters).
- (2) ¹The structure of the degree programme is based on the applicant's level of German language proficiency at the time of admission to the degree programme: Students who provide proof of German language proficiency at level B1 of the Common European Framework of Reference for Languages (CEFR) at the time of application are assigned to Language Track B, whose language modules (module numbers 4B, 5B, 20B and 21B according to the appendix) must be selected from the corresponding language module catalogue. ²Students who do not provide this proof are assigned to Language Track A and take the corresponding compulsory modules "German as a foreign language" (module numbers 4A, 5A, 20A and 21A according to the appendix) in the first four semesters.
- (3) ¹The basics are taught in the first part of the programme. ²Students gain an insight into the requirements of the course and the job profile of the degree programme so that they can recognise at an early stage whether they have chosen the right degree programme for them.
- (4) The second study section expands on the basics, teaches specific specialist knowledge of the degree programme and imparts practice-oriented knowledge based on this, which is particularly deepened in the 5th study semester, the practical study semester.
- (5) ¹In the third stage of their studies, students deepen their knowledge through the compulsory elective and specialisation modules. ²This study phase also includes the Bachelor's thesis in the 7th semester.
- (6) Alternative module descriptions apply to modules 18, 24.1, 24.2, 31, 34.1, 34.2 for students studying in the alternative form "dual study programme".

§ 5 Practical semester

- (1) The practical semester takes place in the 5th semester. It includes an internship of 18 weeks (module 24.1) and course no. 24.2 in accordance with the appendix.
- (2) ¹Completion of the work placement constitutes an examination. ²Students are supervised by full-time teaching staff during the internship.

§ 6 Modules and certificates of achievement

- (1) ¹ECTS credits are awarded for the academic achievements¹⁾ are awarded. ²One credit corresponds to an average workload of 30 hours of attendance and self-study.
- (2) ¹The compulsory and compulsory elective modules, the number of hours per week per semester, the type of courses, the examinations and course-related assessments as well as the credits are set out in the annex to these study and examination regulations. ²The regulations are supplemented for compulsory elective modules by the catalogue of compulsory elective modules, for specialisation modules by the catalogue of specialisation modules and for the modules Language Track B 1 to 4 by the catalogue of language modules.
- (3) All modules are either compulsory modules, compulsory elective modules or elective modules.
 1. Compulsory modules are the modules of the degree programme that are mandatory for all students.
 2. ¹Compulsory elective modules are modules that are offered as alternatives. Students must make a specific selection from among them in accordance with these study and examination regulations. ²The Faculty Council determines before the start of the semester which modules students are permitted to select. Details are regulated by the compulsory elective module catalogue as well as the specialisation module catalogue and the language module catalogue for Language Track B. ³The selected modules are treated as compulsory modules.
 3. ¹Elective modules are modules that are not mandatory for achieving the study objective. They can be additionally selected by students from the degree programme offered by the university. ²If these are modules outside the curriculum of the degree programme, the faculty offering the module may object to their being taken.

§ 7 Curriculum

- (1) The Faculty of Computer Science and Mathematics draws up a study plan in accordance with the regulations in § 11 a of the APO to ensure the range of courses offered and to inform students.
- (2) In particular, the curriculum also contains regulations and information on
 1. alternative options to the language of instruction specified in the Annex to these Study and Examination Regulations, insofar as these points are not conclusively regulated in these Study and Examination Regulations,
 2. the precise provisions on requirements, components and assessment criteria for course-related assessments of the type "portfolio examination" (Pf).
- (3) ¹There is no entitlement to elective modules actually being offered. ²Similarly, there is no entitlement to the associated courses being held if there are insufficient participants.

¹⁾ Credit points according to the European Credit Transfer and Accumulation System (ECTS), hereinafter referred to as

§ 8 Study progress

- (1) ¹The examinations in the modules "Language Track A - German as a foreign language 1" or "Language Track B - Part 1", "Mathematics 1" and "Programming 1" (module numbers 4A or 4B, 6 and 8 according to the annex) must be completed by the end of the second semester (foundation and orientation examination). ²If they have not been taken by the end of the specified deadline, they are deemed to have been failed for the first time.
- (2) Only students who have obtained at least 30 credits in the first stage of their studies are entitled to enter the second stage.
- (3) Admission to the internship (module no. 24.1 according to the annex) requires that at least 90 credits have been achieved and that the examination in the module "Language Track A - German as a foreign language 3" or "Language Track B - Part 3" (module numbers 20A or 20B according to the annex) has been completed.
- (4) Students who have passed all examinations in the first study phase and have earned a total of at least 100 credits may enter the third study phase.

§ 9 Student counselling

- (1) Students who have not yet completed 30 credits by the end of the second semester are requested to visit the Student Advisory Service.
- (2) Before taking a second repeat examination, students are requested to visit the student counselling service.

§ 10 Examination board

- (1) ¹An examination board is formed for the degree programme. ²It consists of the chairperson and two further members appointed by the Faculty Council. ³The term of office is three years. Reappointment is possible.
- (2) ¹A substitute member is appointed for each member of the examination board. ²The term of office of the substitute members is three years; reappointment is possible.

§ 11 Bachelor thesis

- (1) In the Bachelor's thesis, students should demonstrate their ability to independently apply the knowledge and skills acquired during their studies to complex tasks.
- (2) The topic of the Bachelor's thesis is issued in the sixth semester at the earliest. The prerequisite for this is that the internship (module no. 24.1 in the appendix) has been successfully completed.
- (3) The topic of the Bachelor's thesis is issued and supervised by examiners appointed by the Examination Board.
- (4) The processing time for the written elaboration of the Bachelor's thesis must be appropriate to the topic and must not exceed three months if the thesis is to be completed in a continuous and exclusive manner.

- (5) ¹The Bachelor's thesis must be presented and explained orally as part of the Bachelor's seminar (module no. 34.2 in accordance with the annex). ²The presentation can only be assessed as "successful" if the written thesis has been assessed as at least "sufficient". ³Registration for the oral presentation must be made with the examiner. ⁴If this part of the work is assessed as "unsuccessful", it can be repeated once within one month of notification of the assessment. ⁵If the written part of the Bachelor's thesis or a repeated presentation is assessed as "insufficient" or "unsuccessful", the Bachelor's thesis as a whole is to be assessed as "insufficient".
- (6) The Bachelor's thesis may be written in German with the authorisation of the examiner.
- (7) In all other respects, the provisions of the APO on the submission of the Bachelor's thesis apply accordingly.

§ 12

Assessment of examination performance and overall grade

- (1) Examinations are assessed in the differentiated form in accordance with Section 7 (2) sentence 3 RaPO.
- (2) The Bachelor's examination has been passed by those who have passed all examinations in accordance with the annex and have thus achieved exactly 210 credits.
- (3) To calculate the overall grade, the final grades of all modules are multiplied by their respective grade weighting, totalled and divided by the sum of all grade weightings. The grade weighting of the individual modules can be found in the appendix.

§ 13

Certificate and academic degree

- (1) A certificate of successful completion of the Bachelor's examination is issued in accordance with the APO. The grade on the certificate is stated with one decimal place.
- (2) On successful completion of the Bachelor's examination, the academic degree of "Bachelor of Science ", abbreviated to "B.Sc.". A certificate is issued for the award of the academic degree in accordance with the model in the appendix to the APO.
- (3) The German translation of the degree programme title is "Internationale Informa- tik". The German module names are given in the appendix.

§ 14

Entry into force and transitional provisions

- ¹These study and examination regulations come into force on the day after they are published.
²They apply to all students who begin their degree programme after they come into force.

Issued on the basis of the resolution of the University Senate of 9 February 2023 and the legal supervisory approval of the President of the Ostbayerische Technische Hochschule Regensburg.

Regensburg, 17 April 2023

Prof Dr Ralph Schneider President

The statutes were deposited at the university on 17 April 2023. The resignation was announced on 17.04.2023 by posting. The date of the announcement is 17/04/2023.

Attachment:**Overview of the modules, certificates of achievement and credits in the Bachelor's degree programme in International Computer Science****I. Overview of modules, certificates of achievement and credits in the 1st study phase**

1	2	3	4	5	6	7	8	9	10
Module no.	Module name (in German language)	Credits*)	SWS*)	Type of LV	Examinations			Supplementary regulations	Note weight*)
					oral written Duration in min.	Study-accompanying LN	Authorisation requirements		
1	Computer Systems (computer systems)	5	2 2	SU Ü	schrP, 90		Exercise delivery m.E.	2)	1
2	Automata, Formal Languages and Computation (Theoretical Computer Science)	5	2 2	SU Ü	schrP, 90			2)	1
3	Business Administration (Business Administration)	5	2 2	SU Ü	schrP, 90			2)	1
4A	Language Track A - German as a foreign language 1 (German as a foreign language 1)	5	2 2	SU Ü	schrP, 90				1
5A	Language Track A - German as a foreign language 2 (German as a foreign language 2)	5	2 2	SU Ü	schrP, 90				1
4B	Language Track B - Part 1 (Language training Track B - Part 1)	5	2 2	1)	1)	1)	1)	Students must choose one module from the language module catalogue.	1
5B	Language Track B - Part 2 (Language training Track B - Part 2)	5	2 2	1)	1)	1)	1)		1
6	Programming 1 (Programming 1)	8	4 2	SU Ü	schrP, 90		Exercise delivery m.E.	2	1
7	Programming 2 (Programming 2)	8	4 2	SU Ü	schrP, 90		Exercise delivery m.E.	2	1
8	Mathematics 1 (Maths 1)	7	4 2	SU Ü	schrP, 90			2	1

1	2	3	4	5	6	7	8	9	10
Module no.	Module name (in German language)	Credits ^{*)}	SWS ^{*)}	Type of LV	Examinations			Supplementary regulations	Note weight ^{*)}
					oral written Duration in min.	Study-accompanying LN	Authorisation requirements		
9	Mathematics 2 (Maths 2)	7	4 2	SU Ü	schrP, 90			2	1
10	Networking (Communication systems)	5	2 2	SU Pr	schrP, 90			2)	1
Totals for first stage of study:		60	48						

^{*)} Figures in brackets indicate the respective proportion of a sub-module in the overall module. The figures below refer to the different types of courses in column 5.

¹⁾ Further details can be found in the language module catalogue for the Bachelor's degree programme in International Computer Science at the Faculty of Computer Science and Mathematics.

²⁾ The language of instruction and examination is English. Exceptions to this are regulated by the curriculum.

II. Overview of modules, certificates of achievement and credits in the 2nd study phase

1	2	3	4	5	6	7	8	9	10
Module no.	Module name (in German language)	Credits*)	SWS*)	Type of LV	Examinations			Supplementary regulations	Note weight*)
					oral written Duration in min.	Study-accompanying LN	Authorisation requirements		
11	Algorithms and Data Structures (Algorithms and data structures)	8	4 2	SU Ü	schrP, 90		Exercise fee m.E.	2)	2
12	Databases (Databases)	7	4 2	SU Ü	schrP, 90			2)	2
13	Statistics (Statistics)	5	4	SU	schrP, 90			2)	2
14	Operating Systems (operating systems)	5	2 2	SU Ü	schrP, 90			2)	2
16	Computer Architecture (computer technology)	7	4 2	SU Ü	schrP, 90		Exercise fee m.E.	2)	2
17	Global Software Engineering (Global Software Engineering)	8	4 2	SU Ü	schrP, 90		Exercise fee m.E.	2)	2
18	Web Technology Project (Web technology project)	5	2 2	SU Pr		StA		2)	2
19	Software for the Global Market (International Software)	5	2 2	SU Ü	schrP, 90		Exercise fee m.E.	2)	2
20A	Language Track A - German as a foreign language 3 (German as a foreign language 3)	5	2 2	SU Ü	schrP, 90				2
21A	Language Track A - German as a foreign language 4 (German as a foreign language 4)	5	2 2	SU Ü	schrP, 90				2
20B	Language Track B - Part 3 (Language training Track B - Part 3)	5	2 2	1)	1)	1)	1)	Students must choose one module from the language module catalogue.	2
21B	Language Track B - Part 4 (Language training Track B - Part 4)	5	2 2	1)	1)	1)	1)		2

1	2	3	4	5	6	7	8	9	10
Module no.	Module name (in German language)	Credits*)	SWS*)	Type of LV	Examinations			Supplementary regulations	Note weight*)
					oral written Duration in min.	Study-accompanying LN	Authorisation requirements		
22	Mandatory General Studies Elective Module 1 (General science compulsory elective module 1)	2	2	3)	3)	3)	3)	3)	0,5
23	Mandatory General Studies Elective Module 2 (General science compulsory elective module 2)	2	2	3)	3)	3)	3)	3)	0,5
24	Practical Semester (Practical semester)	26							
24.1	Industrial Placement (Internship)	(24)				written report		in my opinion, Confirmation from the practice centre	(-)
24.2	Industrial Placement Seminar (internship seminar)	(2)	2	S		Pre	TN No 24.1	m.E. ²⁾	(-)
Totals for second stage of study:		100	54						

*) Figures in brackets indicate the respective proportion of a sub-module in the overall module. The numbers below refer to the different types of courses according to column 5.

1) Further details can be found in the language module catalogue for the Bachelor's degree programme in International Computer Science at the Faculty of Computer Science and Mathematics.

2) The language of instruction and examination is English. Exceptions to this are regulated by the curriculum.

3) Further details can be found in the catalogue for general science elective modules offered by the Faculty of Natural and Cultural Sciences.

III. Overview of modules, certificates of achievement and credits in the 3rd study phase

1	2	3	4	5	6	7	8	9	10
Module no.	Module name (in German language)	Credits*)	SWS*)	Type of LV	Examinations			Supplementary regulations	Note weight*)
					oral written Duration in min.	Study- accompanyi ng LN	Authorisatio n requirement		
25	Core Module 1 (specialisation module 1)	5	4	5)	5)	5)	5)	There are six modules from the specialisation module catalogue.	2
26	Core Module 2 (specialisation module 2)	5	4	5)	5)	5)	5)		2
27	Core Module 3 (specialisation module 3)	5	4	5)	5)	5)	5)		2
28	Core Module 4 (specialisation module 4)	5	4	5)	5)	5)	5)		2
29	Core Module 5 (specialisation module 5)	5	4	5)	5)	5)	5)		2
30	Core Module 6 (specialisation module 6)	5	4	5)	5)	5)	5)		2
31	Mandatory Subject-Specific Elective Module 1 (Subject-related compulsory elective module)	5	4	6)	6)	6)	6)	There are three modules from the compulsory elective module catalogue.	2
32	Mandatory Subject-Specific Elective Modules 2 (Subject-related compulsory elective module)	5	4	6)	6)	6)	6)		2
33	Mandatory Subject-Specific Elective Module 3 (Subject-related compulsory elective module)	5	4	6)	6)	6)	6)		2

1	2	3	4	5	6	7	8	9	10
Module no.	Module name (in German language)	Credits*)	SWS*)	Type of LV	Examinations			Supplementary regulations	Note weight*)
					oral written Duration in min.	Study-accompanying LN	Authorisation requirements		
34	Bachelor's Thesis (Bachelor thesis)	15							
34.1	Thesis (Written elaboration)	(12)				BA			6
34.2	Seminar (Bachelor seminar)	(3)	2	S		Pre, m.E.	Module 34.1 with rated "sufficient"	TN4).2)	
Totals for third stage of study:		60	38						

*) Figures in brackets indicate the respective proportion of a sub-module in the overall module. The numbers below refer to the different types of courses according to column 5.

2) The language of instruction and examination is English. Exceptions to this are regulated by the curriculum.

4) participation in nine other bachelor seminar presentations of the computer science degree programmes of the IM faculty.

5) Further details can be found in the specialisation module catalogue for Bachelor's degree programmes at the Faculty of Computer Science and Mathematics.

6) Further details can be found in the compulsory elective module catalogue for Bachelor's degree programmes in the Faculty of Computer Science and Mathematics.

Abbreviations:**Forms of examination**

BA	Bachelor thesis	CI	Exam	Col	Colloquium
m.E.	Evaluation with/without success	m.P.	with presentation	MA	Master thesis
mdILN	oral proof of performance	mdIP	Oral examination	Pf	Portfolio review
Pre	Presentation	prLN	practical proof of performance	Prot	Protocol
PStA	Exam study paper	Ref	Unit	schrP	written examination
StA	Student research project	TN	Proof of participation with success		

Types of teaching

Ex	Excursion	Pr	Internship	Pro	Project work
S	Seminar	SU	Seminar-style teaching with exercises if necessary	SUW	Seminar-based teaching for subject-specific compulsory elective modules
Ü	Exercise	V	Lecture		

Other

LN	Proof of performance	LV	Course	SWS	Semester hours per week
UE	Teaching units				

Explanations:

- A student research project is a written elaboration of a previously assigned subject-related topic in accordance with the relevant rules of academic work and should be approximately 10 to 15 pages in length.
- A presentation is a media presentation of a previously assigned specialised topic, the duration of which should be 30 minutes.
- A presentation is an oral presentation in a fixed time slot with a handout based on a prepared text on a specific topic. The aim is to impart knowledge, information and context.
- A portfolio examination (Pf) consists of a maximum of three performance records in the forms of a written performance record, oral performance record, practical performance record and coursework. In the case of a written assessment in the form of a written examination, the time taken to complete the examination may not exceed 45 minutes. The study plan contains information on the performance assessments that make up the portfolio examination, the scope of these performance assessments, the time period in which each of these performance assessments must be completed, how the overall assessment of the portfolio examination is determined from the partial assessments, which examiner determines the overall result and which conditions lead to failure of the portfolio examination. The partial performances are the same examination subject. The time and content of the entire portfolio examination should correspond approximately to that of an oral or written module examination.