Study and Examination Regulations for the
Bachelor's Degree Program in Computer Science
at the Hof University of Applied Sciences

From 23th October 2020*

> ***Only the German version of this document is legally binding.***
> ***This English translation is for your convenience only.***

Based on Article 13, Paragraph 1, Clause 2, first half of the clause of the Bavarian Higher Education Act - BayH-SchG - (BayRS 2210-1-1-WFK), Hof University of Applied Sciences enacts the following Statutes:

Preliminary Note

The present statutes have been formulated in a gender-neutral manner as far as possible. Even where this is not the case for linguistic reasons, references to persons in the following provisions mean members of any gender.

§1

Purpose of the Study and Examination Regulations

[1]These regulations govern the content and structure of the Bachelor's degree program in Computer Science. [2]In addition, it makes the guidelines on the examinations in this degree program required to fulfil the Framework Examination Regulations for Universities of Applied Sciences - RaPO - (BayRS 2210-4-1-4-1-WFK) and the General Examination Regulations of the Hof University of Applied Sciences (APO).

§ 2

Degree Program Objective

(1) [1]The internationally oriented degree program Computer Science imparts the ability to work in projects and organizational units of information technology. [2]In particular, students are prepared for tasks in software development including the topics of design, realization and validation of large computer systems.

(2) [1]Essential subtargets in teaching these skills are mastering the concepts of algorithm and software development as well as the use of basic software such as data bases and operating systems. [2]In addition, the program familiarizes students with the necessary mathematical and technical fundamentals. [3]This includes logical and mathematical thinking as an essential tool for analyzing problems and developing algorithms to solve them, as well as a basic understanding of how computers and computer networks work. [4]In addition, students are provided with a sound knowledge of the German language and intercultural skills.

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* As amended by the Second Amendment Statute of August 3, 2023 (Amtsblatt der Hochschule No. 18/2023).

§ 3

Structure of the Study Program

(1) The standard program length is eight semesters.

(2) The study program is structured as follows:

Degree program stage	Period with recommended course of study
Introductory stage	1. to 3. curricular semester
Core and specialization stage	4. to 7. curricular semester
Practical semester	8. curricular semester

§ 4

Modules

(1) [1]The modules required to pass the Bachelor's degree, the type and scope of the courses, the form of the examinations including the processing times of written examination papers, the weighting of several examinations within a module, any entrance requirements for participation in the examinations as well as the assessment according to the European Credit Transfer and Accumulation System (ECTS) are specified in the Annex. [2]One credit corresponds to a workload of 30 hours.

(2) [1]In the specialization stage, students must complete nine subject-related core elective modules totaling 45 credits. [2]These modules serve to broaden and deepen competencies in relevant subfields of computer science. [3]The modules available for selection in the respective semester are determined in the module catalogue, taking demand into account.

(3) [1]Furthermore, students in the specialization stage must complete a general science core elective module totaling at least 5 credits. [2]Alternatively, several modules of this type may be completed, comprising a total of at least 5 credits. [3]Compulsory elective modules in general studies offered specifically by the Department of Computer Science are specified in the module catalogue, if applicable. [4]Apart from this, all modules from the Language Center can be selected as general science core elective modules, subject to the required prior knowledge. [5]The same applies to all modules accessible for this purpose in Bachelor's degree programs of the Departments of Engineering and Economics. [6]Details are regulated by the relevant study and examination regulations as well as module catalogues.

§ 5

Module catalogue, Program curriculum

(1) [1]The Department of Computer Science shall prepare a module catalogue. [2]The module catalogue specifies the course content and educational objectives of the modules in detail. [3]In addition, it contains more detailed regulations on the examinations and entrance requirements for participation in examinations specified in the appendix, the professional guidance during the preparation of the final thesis and during the internship as well as the language of instruction and examination, insofar as this is not German. [4]If the

same module is offered more than once in a semester, the module catalogue shall determine the criteria according to which the students are distributed among the courses with the same content.

(2) [1]In addition, the Department of Computer Science shall prepare a program curriculum. [2]The program curriculum informs in detail about the courses offered by the department and the recommended course of study.

(3) [1]The module catalogue and the program curriculum shall be adopted by the department council in consultation with the examination board and shall be published by the university. [2]The announcement of new arrangements must be made at the latest at the beginning of the lecture period of the semester in which the arrangements are to be applied for the first time.

§ 6

Admission requirements for individual modules

(1) [1]Students who have not yet earned at least 75 credits in the modules of the introductory stage are excluded from participating in the courses and examinations of the modules of the following study sections until they fulfill this admission requirement. [2]This does not apply to general science core elective modules.

(2) Participation in the courses and examinations of the modules of the practical semester requires that the student has successfully completed all modules of the introductory stage and has acquired at least 110 credits in the modules of the core and specialization stage.

§ 7

Language of teaching and examination

[1]The modules marked with the additional "(E)" in the appendix shall be conducted in English. [2]In addition, English may be the language of instruction and examination in suitable modules. [3]In all other respects, the courses and examinations shall be held in German.

§ 8

Academic Degree

On the basis of the successful completion of the Bachelor's degree examination, Hof University of Applied Sciences awards students the degree of Bachelor of Science (B.Sc.).

§ 9

Examination Board

[1]In the Department of Computer Science, an examination board is formed for the Bachelor's degree program in Computer Science. [2]The examination board is composed of the chairperson and two other members. [3]The members are elected by the department council.

§ 10
Effective date

It has been decided not to reprint the text. The present version is valid since 01.10.2023

Annex (to § 4)

I.   Introductory stage

1	2	3	4	5	6	7
					Examination	
Ongoing No.	Module groups and modules	SWS	Credits	Course format	format	Entrance requirements
1	**Informatik (Computer Science)**					
1.1	Fundamentals of Information Technology (E)	4	5	SU, Ü	schrP90	
1.2	Algorithmen und Datenstrukturen (Algorithms and data structures)	4	5	SU, Ü	schrP90	
1.3	Operating Systems (E)	4	5	SU, Ü	schrP90	
1.4	Rechnernetze (Computer networks)	4	5	SU, Ü	schrP90	
2	**Softwareentwicklung (Software Development)**					
2.1	Fundamentals of Programming (E)	6	7	SU, Ü	schrP90	TN80, Testat
2.2	Grundlagen Web Development (Fundamentals of Web Development)	4	5	SU, Ü	schrP90	Testat
2.3	Software Engineering	4	5	SU, Ü	schrP90	
3	**Mathematik (Mathematics)**					
3.1	Mathematics (E)	4	5	SU, Ü	schrP90	
3.2	Statistik (Statistics)	4	5	SU, Ü	schrP90	
4	**Allgemeine Kompetenzen (General competencies)**					
4.1	Gestaltung, Kommunikation und Präsentation (Design, communication and presentation)	4	5	SU, Ü	Präs30, Konzept[1]	TN80
4.2	Studying with Success (E)	2	3	SU, Ü	schrP60	TN80
4.3	Intercultural Competence (E)	4	5	SU, Ü	StA, Ref20[2]	
4.4	Deutsch als Fremdsprache I (German as a foreign language I)	12	15	SU, Ü	schrP90, mdlP15[2]	TN80
4.5	Deutsch als Fremdsprache II (German as a foreign language II)	12	15	SU, Ü	schrP90, Ref15[2]	TN80

[1] For the calculation of the final grade of the module, the presentation is to be weighted with 70%, the concept with 30%. Both exams must be passed.

[2] For the calculation of the final grade of the module, each of the two examinations is to be weighted with 50 %. Both examinations must be passed.

II.   Core Stage

1	2	3	4	5	6	7
					Examination	
Ongoing No.	Module groups and modules	SWS	Credits	Course format	format	Entrance requirements
5	**Softwareentwicklung (Software Development)**					
5.1	Effizientes Programmieren mit C/C++ (Efficient programming with C/C++)	4	5	SU,Ü	schrP90	
5.2	Full Stack Web Development	4	5	SU,Ü	StA	
5.3	Fortgeschrittene Programmiertechniken (Advanced Programming Techniques)	4	5	SU,Ü	schrP90	
5.4	Software-System-Entwicklung (Software system development)	4	5	SU,Ü	StA	
5.5	Software-Architektur (Software Architecture)	4	5	SU,Ü	schrP90	
5.6	Interdisziplinäres Softwareentwicklungsprojekt (Interdisciplinary Software Development Project)	4	5	Pr	StA	TN80
6	**Informationsmanagement und KI (Information management and AI)**					
6.1	Angewandte KI (Applied AI)	4	5	SU,Ü	schrP90	
6.2	Fortgeschrittene Konzepte der KI (Advanced concepts of AI)	4	5	SU,Ü	schrP90	
6.3	Datenbanken (Databases)	4	5	SU,Ü	schrP90	
6.4	Data Science	4	5	SU,Ü	schrP90	
6.5	IT-Sicherheit (IT security)	4	5	SU,Ü	schrP90	
6.6	Cloud Computing	4	5	SU,Ü	StA	
7	**Mathematik (Mathematics)**					
7.1	Mathematik für Informatiker (Mathematics for computer scientists)	4	5	SU,Ü	schrP90	

8	**Allgemeine Kompetenzen (General competencies)**					
8.1	Digitalethik (Ethics in Digitalization)	4	5	SU,Ü	schrP90	

III.   Specialization Stage

1	2	3	4	5	6	7
					Examination	
Ongoing No.	Module groups and modules	SWS	Credits	Course format	format	Entrance requirements
9	**Wahlpflichtmodule (Core elective modules)**					
9.1	Fachbezogene Wahlpflichtmo-dule (Subject-related core elective module(s))	9 x 4	9 x 5	SU, Ü	P[1]	ZV[2]
9.2	Allgemeinwissenschaftliche(s) Wahlpflichtmodul(e) (General Science core elective module(s))		5	SU, Ü	P[1]	ZV[2]

[1] Possible examinations (P) are written examinations of 90 minutes duration (schrP90), study papers (StA), report (Ref) or oral examinations (mdlP). A study paper (StA) may include a presentation of the paper or a colloquium on the paper. Further details are specified in the module catalog.

[2] Possible entrance requirements (ZV) are testat (audit certificate) or proof of participation (TN). The details are specified in the module catalogue.

IV.   Practical semester

1	2	3	4	5	6	7
					Examination	
Ongoing No.	Module groups and modules	SWS	Credits	Course format	format	Entrance requirements
10	**Final theses**					
10.1	Praxisarbeit (Practical work)		18	Pr	StA	TN[1]
10.2	Bachelorarbeit (Bachelor thesis)		12	Pr	AA[2]	

1) The internship lasts 18 weeks. The completion of the internship is to be documented by a certificate of participation issued by the institution of training that meets the requirements of the university. The form issued by the university is to be used for the proof of participation. Further details are regulated in the module catalogue.

2) The time required to complete the Bachelor's thesis is three months.

Explanation of abbreviations:

AA	final thesis
Konzept	concept paper
mdlP	oral exam (with duration in minutes)
P	exam(s)
Pr	internship
Präs	presentation (with duration in minutes)
Ref	oral presentation (with duration in minutes)
schrP	written exam (with duration in minutes)
StA	study paper (regular workload 50 to 60 hours)
SU	seminar teaching
SWS	hours (per week)
TN	proof of participation (necessary attendance in the courses in percent)
Ü	exercise
ZV	entrance requirements