

# Course of Study Computer Science (Study Cohort w22)

Sample course plan R Bachelor Computer Science (CSBS)

Specialisation I. Computer and Software Engineering, Specialisation II. Mathematics and Engineering Science,

Specialisation III. Subject Specific Focus

Legend:

Core Qualification Compulsory	Specialisation Compulsory	Focus Compulsory	Thesis Compulsory
Core Qualification Elective Compulsory	Specialisation Elective Compulsory	Focus Elective Compulsory	Interdisciplinary complement

1	<b>Discrete Algebraic Structures</b>	<b>Automata Theory and Formal Languages</b>	<b>Databases</b>	<b>Computability and Complexity Theory</b>	<b>Software Industrial Internship</b>	<b>Embedded Systems</b>
2	Discrete Algebraic Structures VL 2	Automata Theory and Formal Languages VL 2	Databases VL 3	Computability and Complexity Theory VL 2		Embedded Systems VL 3
3	Discrete Algebraic Structures GÜ 2	Automata Theory and Formal Languages GÜ 2	Databases - Exercise GÜ 2	Computability and Complexity Theory GÜ 2		Embedded Systems GÜ 1
4						Embedded Systems PBL 1
5						
6						
7	<b>Functional Programming</b>	<b>Foundations of Management</b>	<b>Computer Engineering</b>	<b>Stochastics</b>	<b>Seminars Computer Science</b>	<b>Introduction into Medical Technology and Systems</b>
8	Functional Programming VL 2	Introduction to Management VL 3	Computer Engineering VL 3	Stochastics VL 2	Introductory Seminar Computer Science II SE 2	Introduction into Medical Technology and Systems VL 2
9	Functional Programming HÜ 2	Management Tutorial GÜ 2	Computer Engineering GÜ 1	Stochastics GÜ 2	Introductory Seminar Computer Science I SE 2	Introduction into Medical Technology and Systems PS 2
10	Functional Programming GÜ 2					Introduction into Medical Technology and Systems HÜ 1
11						
12						
13	<b>Procedural Programming for Computer Engineers</b>	<b>Programming Paradigms</b>	<b>Computernetworks and Internet Security</b>	<b>Software Engineering</b>	<b>Computer Architecture</b>	<b>Signals and Systems</b>
14	Procedural Programming for Computer Engineers VL 2	Programming Paradigms VL 2	Computer Networks and Internet Security VL 3	Software Engineering VL 2	Computer Architecture VL 2	Signals and Systems VL 3
15	Procedural Programming for Computer Engineers HÜ 1	Programming Paradigms HÜ 1	Computer Networks and Internet Security GÜ 1	Software Engineering GÜ 2	Computer Architecture PBL 2	Signals and Systems GÜ 2
16	Procedural Programming for Computer Engineers PR 2	Programming Paradigms PR 2			Computer Architecture GÜ 1	
17						
18						
19	<b>Mathematics I (EN)</b>	<b>Mathematics II (EN)</b>	<b>Algorithms and Data Structures</b>	<b>Graph Theory and Optimization</b>	<b>Introduction to Quantum Computing</b>	<b>Bachelor Thesis</b>
20	Mathematics I VL 4	Mathematics II VL 4	Algorithms and Data Structures VL 4	Graph Theory and Optimization VL 2	Introduction to Quantum Computing VL 2	
21	Mathematics I HÜ 2	Mathematics II HÜ 2	Algorithms and Data Structures GÜ 1	Graph Theory and Optimization GÜ 2	Introduction to Quantum Computing HÜ 2	
22	Mathematics I GÜ 2	Mathematics II GÜ 2				
23						
24						
25			<b>Mathematics III (EN)</b>			
26			Analysis III VL 2			
27			Analysis III HÜ 1			
28			Analysis III GÜ 1			
29			Differential Equations 1 VL 2			
30			Differential Equations 1 HÜ 1			
31			Differential Equations 1 GÜ 1			
32						
Non-technical Courses for Bachelors (from catalogue) - 6LP						
Technical Complementary Course I for CSBS - 6LP						
Technical Complementary Course II for CSBS - 6LP						

The choice of courses from the catalogue is flexible (depends on the semestral work load), provided the necessary number of required credits is reached.

