

# Course of Study Computer Science (Study Cohort w20)

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

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

