

# Course of Study Computer Science (Study Cohort w22)

Sample course plan R Bachelor Computer Science (CSBS) Dual study program  
 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>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	Software Industrial Internship	Embedded Systems VL 3
3	Discrete Algebraic Structures GÜ 2	Automata Theory and Formal Languages GÜ 2	Databases GÜ 1	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>
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>Practical module 5 (dual study program, Bachelor's degree)</b>	<b>Signals and Systems</b>
14	Procedural Programming for Computer Engineers VL 1	Programming Paradigms VL 2	Computer Networks and Internet Security VL 3	Software Engineering VL 2	Practical term 5 0	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		Signals and Systems GÜ 2
16	Procedural Programming for Computer Engineers PR 2	Programming Paradigms PR 2				
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>Computer Architecture</b>	<b>Bachelor thesis (dual study program)</b>
20	Mathematics I VL 4	Mathematics II VL 4	Algorithms and Data Structures VL 4	Graph Theory and Optimization VL 2	Computer Architecture VL 2	
21	Mathematics I HÜ 2	Mathematics II HÜ 2	Algorithms and Data Structures GÜ 1	Graph Theory and Optimization GÜ 2	Computer Architecture PBL 2	
22	Mathematics I GÜ 2	Mathematics II GÜ 2			Computer Architecture GÜ 1	
23						
24						
25						
26			<b>Mathematics III (EN)</b>	<b>Practical module 4 (dual study program, Bachelor's degree)</b>	<b>Quantum Mechanics for Engineers</b>	
27	<b>Practical module 1 (dual study program, Bachelor's degree)</b>	<b>Practical module 2 (dual study program, Bachelor's degree)</b>	Analysis III VL 2	Practical term 4 0	Quantum Mechanics for Engineers VL 2	
28			Analysis III HÜ 1		Quantum Mechanics for Engineers GÜ 2	
29			Analysis III GÜ 1			
30			Differential Equations 1 VL 2			
31			Differential Equations 1 HÜ 1			
32	Differential Equations 1 GÜ 1					
33			<b>Practical module 3 (dual study program, Bachelor's degree)</b>			
34			Practical term 3 0			
35						
36						
37						
38						

Linking theory and practice (dual study program, Bachelor's degree) (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.

