

# Course of Study Computer Science (Study Cohort w18)

Sample course plan R Bachelor Computer Science (CSBS)  
Specialisation Computational Mathematics

Legend:

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

LP	Semester 1	FormHrs/wk	Semester 2	FormHrs/wk	Semester 3	FormHrs/wk	Semester 4	FormHrs/wk	Semester 5	FormHrs/wk	Semester 6	FormHrs/wk						
1	<b>Discrete Algebraic Structures</b>		<b>Objectoriented Programming, Algorithms and Data Structures</b>		<b>Computer Engineering</b>		<b>Computability and Complexity Theory</b>		<b>Seminars Computer Science and Mathematics</b>		<b>Algebra and Control</b>							
2													Discrete Algebraic Structures VL 2	Computer Engineering VL 3	Computability and Complexity Theory VL 2	Seminar Computational Engineering Science SE 2	Algebra and Control VL 2	
3													Discrete Algebraic Structures UE 2	Objectoriented Programming, Algorithms and Data Structures VL 4	Computer Engineering UE 1	Computability and Complexity Theory UE 2	Seminar Computational Mathematics/Computer Science SE 2	Algebra and Control UE 2
4																		
5														Objectoriented Programming, Algorithms and Data Structures UE 1			Seminar Engineering Mathematics/Computer Science SE 2	
6																		
7	<b>Procedural Programming</b>		<b>Automata Theory and Formal Languages</b>		<b>Computernetworks and Internet Security</b>		<b>Signals and Systems</b>		<b>Software Industrial Internship</b>		<b>Solvers for Sparse Linear Systems</b>							
8													Procedural Programming VL 1	Computer Networks and Internet Security VL 3	Signals and Systems VL 3		Solvers for Sparse Linear Systems VL 2	
9													Procedural Programming HÜ 1	Automata Theory and Formal Languages VL 2	Computer Networks and Internet Security UE 1	Signals and Systems UE 2	Solvers for Sparse Linear Systems UE 2	
10													Procedural Programming PR 2	Automata Theory and Formal Languages UE 2	Computer Networks and Internet Security HÜ 1			
11																		
12																		
13	<b>Functional Programming</b>		<b>Software Engineering</b>		<b>Mathematics III</b>		<b>Stochastics</b>		<b>Numerical Mathematics I</b>		<b>Mathematics IV</b>							
14													Functional Programming VL 2	Software Engineering VL 2	Analysis III VL 2	Stochastics VL 2	Numerical Mathematics I VL 2	Complex Functions VL 2
15													Functional Programming HÜ 2	Software Engineering UE 2	Analysis III UE 1	Stochastics UE 2	Numerical Mathematics I UE 2	Complex Functions UE 1
16													Functional Programming UE 2		Analysis III HÜ 1			Complex Functions HÜ 1
17															Differential Equations 1 VL 2			Differential Equations 2 VL 2
18															Differential Equations 1 UE 1			Differential Equations 2 UE 1
19	<b>Linear Algebra</b>		<b>Mathematical Analysis</b>		<b>Introduction to Information Security</b>		<b>Graph Theory and Optimization</b>		<b>Introduction to Control Systems</b>		<b>Bachelor Thesis</b>							
20													Linear Algebra VL 4	Mathematical Analysis VL 4	Introduction to Information Security VL 3	Graph Theory and Optimization VL 2	Introduction to Control Systems VL 2	
21													Linear Algebra HÜ 2	Mathematical Analysis HÜ 2	Introduction to Information Security UE 2	Graph Theory and Optimization UE 2	Introduction to Control Systems UE 2	
22													Linear Algebra UE 2	Mathematical Analysis UE 2				
23																		
24																		
25																		
26																		
27			<b>Foundations of Management</b>				<b>Operating Systems</b>		<b>Numerics and Computer Algebra</b>									
28		Introduction to Management VL 3											Operating Systems VL 2	Numerical Mathematics and Computer Algebra VL 2				
29		Management Tutorial HÜ 2											Operating Systems UE 2	Numerical Mathematics and Computer Algebra UE 1				
30														Numerics and Computer Algebra SE 2				
31																		
32																		

Nontechnical Complementary Courses for Bachelors (from catalogue) - 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.