

# Course of Study Computer Science (Study Cohort w18)

Sample course plan M 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>Mathematics IV</b>	
2	Discrete Algebraic Structures VL 2				Computer Engineering VL 3						Complex Functions VL 2	
3												
4	Discrete Algebraic Structures UE 2		Objectoriented Programming, Algorithms and Data Structures VL 4		Computer Engineering UE 1		Computability and Complexity Theory VL 2		Seminar Computational Engineering Science SE 2		Complex Functions UE 1	
5											Complex Functions HÜ 1	
6			Objectoriented Programming, Algorithms and Data Structures UE 1				Computability and Complexity Theory UE 2		Seminar Computational Mathematics/Computer Science SE 2		Differential Equations 2 VL 2	
									Seminar Engineering Mathematics/Computer Science SE 2		Differential Equations 2 UE 1	
											Differential Equations 2 HÜ 1	
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>Measure Theory and Stochastics</b>	
8	Procedural Programming VL 1						Signals and Systems VL 3				Measure Theory and Stochastics VL 3	
9	Procedural Programming HÜ 1		Automata Theory and Formal Languages VL 2		Computer Networks and Internet Security VL 3		Signals and Systems UE 2				Measure Theory and Stochastics UE 1	
10	Procedural Programming PR 2											
11			Automata Theory and Formal Languages UE 2		Computer Networks and Internet Security UE 1							
12												
13	<b>Functional Programming</b>		<b>Software Engineering</b>		<b>Mathematics III</b>		<b>Stochastics</b>		<b>Computational Geometry</b>		<b>Mathematical Statistics</b>	
14	Functional Programming VL 2		Software Engineering VL 2		Analysis III VL 2		Stochastics VL 2		Computational Geometry VL 2		Mathematical Statistics VL 3	
15	Functional Programming HÜ 2		Software Engineering UE 2		Analysis III UE 1		Stochastics UE 2		Computational Geometry UE 2		Mathematical Statistics UE 1	
16	Functional Programming UE 2				Analysis III HÜ 1							
17					Differential Equations 1 VL 2							
18					Differential Equations 1 UE 1							
19	<b>Linear Algebra</b>		<b>Mathematical Analysis</b>		<b>Introduction to Information Security</b>		<b>Graph Theory and Optimization</b>		<b>Numerics and Computer Algebra</b>		<b>Bachelor Thesis</b>	
20	Linear Algebra VL 4		Mathematical Analysis VL 4				Graph Theory and Optimization VL 2		Numerical Mathematics and Computer Algebra VL 2			
21	Linear Algebra HÜ 2		Mathematical Analysis HÜ 2				Graph Theory and Optimization UE 2		Numerical Mathematics and Computer Algebra UE 1			
22	Linear Algebra UE 2		Mathematical Analysis UE 2		Introduction to Information Security VL 3				Numerics and Computer Algebra SE 2			
23					Introduction to Information Security UE 2							
24												
25												
26							<b>Operating Systems</b> VL 2		<b>Combinatorial Structures and Algorithms</b>			
27							Operating Systems UE 2		Combinatorial Structures and Algorithms VL 3			
28			<b>Foundations of Management</b>						Combinatorial Structures and Algorithms UE 1			
29			Introduction to Management VL 3									
30			Management Tutorial HÜ 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.