

Course of Study Computational Science and Engineering (Study Cohort w17)

Sample course plan M Bachelor Computational Science and Engineering (IIBWS)
Specialisation Computer Science

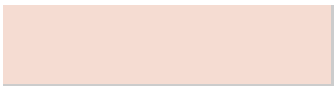
Legend:

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	Discrete Algebraic Structures	VL 2	Electrical Engineering II: Alternating Current Networks and Basic Devices		Engineering Mechanics I		Engineering Mechanics II		Seminars Computer Science and Mathematics		Stochastics	
2						Engineering Mechanics I VL 3		Engineering Mechanics II VL 3				VL 2
3						Engineering Mechanics I UE 2		Engineering Mechanics II UE 2		Seminar Computational Engineering Science SE 2		UE 2
4		UE 2		Electrical Engineering II: Alternating Current Networks and Basic Devices VL 3						Seminar Computational Mathematics/Computer Science SE 2		
5				Electrical Engineering II: Alternating Current Networks and Basic Devices UE 2						Seminar Engineering Mathematics/Computer Science SE 2		
6												
7	Procedural Programming	VL 1	Objectoriented Programming, Algorithms and Data Structures		Numerical Mathematics I		Signals and Systems		Introduction to Control Systems		Solvers for Sparse Linear Systems	
8						Numerical Mathematics I VL 2		Signals and Systems VL 3				
9		HÜ 1				Numerical Mathematics I UE 2		Signals and Systems UE 2		Introduction to Control Systems VL 2		VL 2
10				Objectoriented Programming, Algorithms and Data Structures VL 4						Introduction to Control Systems UE 2		UE 2
11		PR 2		Objectoriented Programming, Algorithms and Data Structures UE 1								
12												
13	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields		Automata Theory and Formal Languages		Computer Engineering		Embedded Systems		Numerics and Computer Algebra		Mathematical Statistics	
14						Computer Engineering VL 3		Embedded Systems VL 3				VL 3
15				Automata Theory and Formal Languages VL 2		Computer Engineering UE 1		Embedded Systems UE 1		Numerical Mathematics and Computer Algebra VL 2		UE 1
16		VL 3		Automata Theory and Formal Languages UE 2						Numerical Mathematics and Computer Algebra UE 1		
17										Numerics and Computer Algebra SE 2		
18		UE 2										
19	Mathematics I	VL 2	Foundations of Management		Computernetworks and Internet Security		Graph Theory and Optimization		Combinatorial Structures and Algorithms		Bachelor Thesis	
20												
21		UE 1		Introduction to Management VL 3		Computer Networks and Internet Security VL 3		Graph Theory and Optimization VL 2		Combinatorial Structures and Algorithms VL 3		
22				Project Entrepreneurship PBL 2		Computer Networks and Internet Security UE 1		Graph Theory and Optimization UE 2		Combinatorial Structures and Algorithms UE 1		
23		HÜ 1										
24		VL 2										
25		UE 1										
26		HÜ 1										
27			Mathematics II		Mathematics III		Mathematics IV					
28				Linear Algebra II VL 2		Analysis III VL 2		Complex Functions VL 2				
29				Linear Algebra II UE 1		Analysis III UE 1		Complex Functions UE 1				
				Linear Algebra II HÜ 1		Analysis III HÜ 1		Complex Functions HÜ 1				
				Analysis II VL 2		Differential Equations 1 VL 2		Differential Equations 2 VL 2				

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Analysis II	HÜ 1	Differential Equations 1	UE 1	Differential Equations 2	UE 1
Analysis II	UE 1	Differential Equations 1	HÜ 1	Differential Equations 2	HÜ 1



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.