

Course of Study Computational Science and Engineering (Study Cohort w14)

Sample course plan T Bachelor Computational Science and Engineering (IIWBS)
Specialisation Computer Science

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

LP	Semester 1	Semester 2	Semester 3	Semester 4	Semester 5	Semester 6
1	Discrete Algebraic Structures	Electrical Engineering II: Alternating Current Networks and Basic Devices	Engineering Mechanics I	Engineering Mechanics II	Seminars Computer Science and Mathematics	Stochastics
2	Discrete Algebraic Structures VL 2		Engineering Mechanics I VL 3	Engineering Mechanics II VL 3		Stochastics VL 2
3	Discrete Algebraic Structures UE 2		Engineering Mechanics I UE 2	Engineering Mechanics II UE 2	Seminar Computational Engineering Science SE 2	Stochastics UE 2
4		Electrical Engineering II: Alternating Current Networks and Basic Devices VL 3			Seminar Computational Mathematics/Computer Science SE 2	
5					Seminar Engineering Mathematics/Computer Science SE 2	
6		Electrical Engineering II: Alternating Current Networks and Basic Devices UE 2				
7	Procedural Programming	Objectoriented Programming, Algorithms and Data Structures	Numerical Mathematics I	Signals and Systems	Introduction to Control Systems	Semiconductor Circuit Design
8	Procedural Programming VL 1		Numerical Mathematics I VL 2	Signals and Systems VL 3	Introduction to Control Systems VL 2	Semiconductor Circuit Design VL 3
9	Procedural Programming UE 1	Objectoriented Programming, Algorithms and Data Structures VL 4	Numerical Mathematics I UE 2	Signals and Systems HÜ 1	Introduction to Control Systems UE 2	Semiconductor Circuit Design UE 1
10	Procedural Programming PR 2					
11		Objectoriented Programming, Algorithms and Data Structures UE 1				
12						
13	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	Logic, Automata and Formal Languages	Computer Engineering	Embedded Systems	Electronic Devices	Lab Cyber-Physical Systems
14			Computer Engineering VL 3	Embedded Systems VL 3	Electronic Devices VL 3	Lab Cyber-Physical Systems PBL 4
15	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields VL 3	Logic, Automata Theory and Formal Languages VL 2	Computer Engineering UE 1	Embedded Systems UE 1	Electronic Devices PBL 2	
16						
17	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields UE 2	Logic, Automata Theory and Formal Languages UE 2				
18						
19	Mathematics I	Foundations of Management	Computernetworks and Internet Security	Graph Theory and Optimization	Computer Architecture	Bachelor Thesis
20	Linear Algebra I VL 2	Introduction to Management VL 4		Graph Theory and Optimization VL 2	Computer Architecture VL 2	
21	Linear Algebra I UE 1	Project Entrepreneurship PBL 2	Computer Networks and Internet Security VL 3	Graph Theory and Optimization UE 2	Computer Architecture UE 2	
22	Linear Algebra I HÜ 1		Computer Networks and Internet Security UE 1			
23	Analysis I VL 2					
24	Analysis I UE 1					
25	Analysis I HÜ 1	Mathematics II	Mathematics III	System on Chip Design (Lab)		
26		Linear Algebra II VL 2	Analysis III VL 2	System on Chip Design PBL 3		
27		Linear Algebra II UE 1	Analysis III UE 1			
28		Linear Algebra II HÜ 1	Analysis III HÜ 1			
29		Analysis II VL 2	Differential Equations 1 VL 2			
30		Analysis II HÜ 1	Differential Equations 1 UE 1			
31						
32		Analysis II UE 1	Differential Equations 1 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.