

Course of Study Computational Science and Engineering (Study Cohort w16)

Sample course plan M Bachelor Computational Science and Engineering (IIWBS)
Specialisation Engineering Sciences

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		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: VL 3						Seminar Computational Mathematics/Computer Science SE 2		
5				Alternating Current Networks and Basic Devices						Seminar Engineering Mathematics/Computer Science SE 2		
6				Electrical Engineering II: UE 2								
				Alternating Current Networks and Basic Devices								
7	Procedural Programming		Objectoriented Programming, Algorithms and Data Structures		Numerical Mathematics I		Signals and Systems		Introduction to Control Systems		Electrical Machines	
8		Procedural Programming VL 1				Numerical Mathematics I VL 2		Signals and Systems VL 3		Introduction to Control VL 2		Electrical Machines VL 3
9		Procedural Programming HÜ 1		Objectoriented Programming, VL 4		Numerical Mathematics I UE 2		Signals and Systems HÜ 1		Systems		Electrical Machines HÜ 2
10		Procedural Programming PR 2		Algorithms and Data Structures						Introduction to Control UE 2		
11				Objectoriented Programming, UE 1								
12				Algorithms and Data Structures								
13	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields		Logic, Automata and Formal Languages		Computer Engineering		Embedded Systems		Technical Thermodynamics II		Fluid Dynamics	
14						Computer Engineering VL 3		Embedded Systems VL 3		Technical Thermodynamics VL 2		Fluid Mechanics VL 3
15		Electrical Engineering I: VL 3		Logic, Automata Theory and VL 2		Computer Engineering UE 1		Embedded Systems UE 1		II		Fluid Mechanics HÜ 2
16		Direct Current Networks and		Formal Languages						Technical Thermodynamics HÜ 1		
17		Electromagnetic Fields		Logic, Automata Theory and UE 2						II		
18		Electrical Engineering I: UE 2		Formal Languages						Technical Thermodynamics UE 1		
		Direct Current Networks and Electromagnetic Fields								II		
19	Mathematics I		Foundations of Management		Computernetworks and Internet Security		Graph Theory and Optimization		Mechanics III (GES)		Bachelor Thesis	
20		Linear Algebra I VL 2		Introduction to Management VL 3				Graph Theory and VL 2		Mechanics III HÜ 1		
21		Linear Algebra I UE 1		Project Entrepreneurship PBL 2		Computer Networks and VL 3		Optimization		Mechanics III UE 2		
22		Linear Algebra I HÜ 1				Internet Security		Graph Theory and UE 2		Mechanics III VL 3		
23		Analysis I VL 2				Computer Networks and UE 1		Optimization				
24		Analysis I UE 1				Internet Security						
25		Analysis I HÜ 1										
26			Mathematics II		Mathematics III		Technical Thermodynamics I					
27				Linear Algebra II VL 2		Analysis III VL 2		Technical Thermodynamics I VL 2				
28				Linear Algebra II UE 1		Analysis III UE 1		Technical Thermodynamics I HÜ 1				
29				Linear Algebra II HÜ 1		Analysis III HÜ 1		Technical Thermodynamics I UE 1				
30				Analysis II VL 2		Differential Equations 1 VL 2						
31				Analysis II HÜ 1		Differential Equations 1 UE 1						
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.