

Course of Study Computational Science and Engineering (Study Cohort w21)

Sample course plan E Bachelor Computational Science and Engineering (IIWBS)
Specialisation I. Computer Science, Specialisation II. Mathematics & Engineering Science, Specialisation III.

Legend:

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

Subject Specific Focus									
1	Discrete Algebraic Structures		Electrical Engineering II: Alternating Current Networks and Basic Devices	Numerical Mathematics I		Signals and Systems		Introduction to Communications and Random Processes	Fundamentals of Operating Systems
2	Discrete Algebraic Structures VL 2		Electrical Engineering II: Alternating Current Networks and Basic Devices VL 3	Numerical Mathematics I GÜ 2		Signals and Systems VL 3		Introduction to Communications and Random Processes VL 3	Fundamentals of Operating Systems VL 2
3	Discrete Algebraic Structures GÜ 2		Electrical Engineering II: Alternating Current Networks and Basic Devices GÜ 2			Signals and Systems GÜ 2		Introduction to Communications and Random Processes HÜ 1	Fundamentals of Operating Systems GÜ 2
4								Introduction to Communications and Random Processes GÜ 1	
5									
6									
7	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields		Automata Theory and Formal Languages	Computer Engineering		Stochastics		Introduction to Control Systems	Bachelor Thesis
8	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields VL 3		Automata Theory and Formal Languages VL 2	Computer Engineering VL 3		Stochastics VL 2		Introduction to Control Systems VL 2	
9	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields GÜ 2		Automata Theory and Formal Languages GÜ 2	Computer Engineering GÜ 1		Stochastics GÜ 2		Introduction to Control Systems GÜ 2	
10									
11									
12									
13	Mathematics I		Foundations of Management	Computernetworks and Internet Security		Embedded Systems		Practical Course IIW	
14	Linear Algebra I VL 2		Introduction to Management VL 3	Computer Networks and Internet Security VL 3		Embedded Systems VL 3		Practical Course IIW PBL 8	
15	Linear Algebra I GÜ 1		Management Tutorial GÜ 2	Computer Networks and Internet Security GÜ 1		Embedded Systems GÜ 1			
16	Linear Algebra I HÜ 1					Embedded Systems PBL 1			
17	Analysis I VL 2								
18	Analysis I GÜ 1								
19	Analysis I HÜ 1								
20			Mathematics II	Mathematics III		Seminars Computer Science		Computer Architecture	
21	Procedural Programming for Computer Engineers		Linear Algebra II VL 2	Analysis III VL 2		Introductory Seminar Computer Science II SE 2		Computer Architecture VL 2	
22	Procedural Programming for Computer Engineers VL 1		Linear Algebra II GÜ 1	Analysis III GÜ 1		Introductory Seminar Computer Science I SE 2		Computer Architecture PBL 2	
23	Procedural Programming for Computer Engineers HÜ 1		Linear Algebra II HÜ 1	Analysis III HÜ 1				Computer Architecture GÜ 1	
24	Procedural Programming for Computer Engineers PR 2		Analysis II VL 2	Differential Equations 1 VL 2					
25			Analysis II HÜ 1	Differential Equations 1 GÜ 1					
26			Analysis II GÜ 1	Differential Equations 1 HÜ 1				Electronic Devices	
27								Electronic Devices VL 3	
28			Programming Paradigms	Algorithms and Data Structures				Electronic Devices PBL 2	
29			Programming Paradigms VL 2	Algorithms and Data Structures VL 4					
30			Programming Paradigms HÜ 1	Algorithms and Data Structures GÜ 1					
31			Programming Paradigms PR 2						
32									
Non-technical Courses for Bachelors (from catalogue) - 6LP									
Technical Complementary Course for Computational Science and Engineering Bachelor - 12LP									

The choice of courses from the catalogue is flexible (depends on the semestral work load), provided the necessary number of required credits is reached.

