

Course of Study Computational Science and Engineering (Study Cohort w20)

Sample course plan I 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	Operating Systems
2	Discrete Algebraic Structures VL 2		Electrical Engineering II: Alternating Current Networks and Basic Devices VL 3	Numerical Mathematics I VL 2		Signals and Systems VL 3		Introduction to Communications and Random Processes VL 3	Operating Systems VL 2
3	Discrete Algebraic Structures GÜ 2		Electrical Engineering II: Alternating Current Networks and Basic Devices GÜ 2	Numerical Mathematics I GÜ 2		Signals and Systems GÜ 2		Introduction to Communications and Random Processes HÜ 1	Operating Systems GÜ 2
4								Introduction to Communications and Random Processes GÜ 1	
5									
6									
7	Procedural Programming		Automata Theory and Formal Languages	Computer Engineering		Stochastics		Introduction to Control Systems	Software Development
8	Procedural Programming VL 1		Automata Theory and Formal Languages VL 2	Computer Engineering VL 3		Stochastics VL 2		Introduction to Control Systems VL 2	Software Development VL 1
9	Procedural Programming HÜ 1		Automata Theory and Formal Languages GÜ 2	Computer Engineering GÜ 1		Stochastics GÜ 2		Introduction to Control Systems GÜ 2	Software Development PBL 2
10	Procedural Programming PR 2								
11									
12									
13	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields		Foundations of Management	Computernetworks and Internet Security		Embedded Systems		Practical Course IIW	Bachelor Thesis
14	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields VL 3		Introduction to Management VL 3	Computer Networks and Internet Security VL 3		Embedded Systems VL 3		Practical Course IIW PBL 8	
15	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields GÜ 2		Management Tutorial GÜ 2	Computer Networks and Internet Security GÜ 1		Embedded Systems GÜ 1			
16									
17									
18									
19	Mathematics I		Mathematics II	Mathematics III		Seminars Computer Science		Electrical Power Systems I: Introduction to Electrical Power Systems	
20	Linear Algebra I VL 2		Linear Algebra II VL 2	Analysis III VL 2		Introductory Seminar Computer Science II SE 2		Electrical Power Systems I: Introduction to Electrical Power Systems VL 3	
21	Linear Algebra I GÜ 1		Linear Algebra II GÜ 1	Analysis III GÜ 1		Introductory Seminar Computer Science I SE 2		Electrical Power Systems I: Introduction to Electrical Power Systems GÜ 2	
22	Linear Algebra I HÜ 1		Linear Algebra II HÜ 1	Analysis III HÜ 1					
23	Analysis I VL 2		Analysis II VL 2	Differential Equations 1 VL 2					
24	Analysis I GÜ 1		Analysis II HÜ 1	Differential Equations 1 GÜ 1					
25	Analysis I HÜ 1		Analysis II GÜ 1	Differential Equations 1 HÜ 1					
26									
27			Programming Paradigms	Algorithms and Data Structures					
28			Programming Paradigms VL 2	Algorithms and Data Structures VL 4					
29			Programming Paradigms HÜ 1	Algorithms and Data Structures GÜ 1					
30			Programming Paradigms PR 2						
31									
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.

