Course of Study Computational Science and Engineering (Study Cohort w19)

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

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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**	**Software Engineering**
2	Discrete Algebraic Structures — VL 2		Numerical Mathematics I — VL 2	Signals and Systems — VL 3	Introduction to Communications and Random Processes — VL 3	Software Engineering — VL 2
3	Discrete Algebraic Structures — GÜ 2	Electrical Engineering II: Alternating Current Networks and Basic Devices — VL 3	Numerical Mathematics I — GÜ 2	Signals and Systems — GÜ 2		Software Engineering — GÜ 2
4		Electrical Engineering II: Alternating Current Networks and Basic Devices — GÜ 2			Introduction to Communications and Random Processes — HÜ 1	
5					Introduction to Communications and Random Processes — GÜ 1	
6						
7	**Procedural Programming**	**Automata Theory and Formal Languages**	**Computer Engineering**	**Stochastics**	**Introduction to Control Systems**	**Introduction into Medical Technology and Systems**
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	Introduction into Medical Technology and Systems — VL 2
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	
10	Procedural Programming — PR 2					Introduction into Medical Technology and Systems — PS 2
11						Introduction into Medical Technology and Systems — HÜ 1
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		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 — VL 3	Management Tutorial — HÜ 2	Computer Networks and Internet Security — GÜ 1	Embedded Systems — GÜ 1		
16	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields — GÜ 2					
17						
18						
19	**Mathematics I**	**Mathematics II**	**Mathematics III**	**Seminars Computer Science and Mathematics**	**Computer Architecture**	
20	Linear Algebra I — VL 2	Linear Algebra II — VL 2	Analysis III — VL 2	Seminar Computer Science und Mathematics 1 — SE 2	Computer Architecture — VL 2	
21	Linear Algebra I — GÜ 1	Linear Algebra II — GÜ 1	Analysis III — GÜ 1	Seminar Computer Science und Mathematics 2 — SE 2	Computer Architecture — PBL 2	
22	Linear Algebra I — HÜ 1	Linear Algebra II — HÜ 1	Analysis III — HÜ 1	Seminar Computer Science und Mathematics 3 — SE 2	Computer Architecture — GÜ 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		**Objectoriented Programming**	**Algorithms and Data Structures**			
28		Objectoriented Programming — VL 2	Algorithms and Data Structures — VL 4			
29		Objectoriented Programming — HÜ 1	Algorithms and Data Structures — GÜ 1			
30		Objectoriented Programming — 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.