Course of Study Computer Science (Study Cohort w22)

Sample course plan S Bachelor Computer Science (CSBS) Dual study program
Specialisation I. Computer and Software Engineering, Specialisation II. Mathematics and Engineering Science,
Specialisation III. Subject Specific Focus

LP 1–6

Discrete Algebraic Structures	Automata Theory and Formal Languages	Databases	Computability and Complexity Theory	Software Industrial Internship	Compiler Construction
Discrete Algebraic Structures VL 2	Automata Theory and Formal Languages VL 2	Databases VL 3	Computability and Complexity Theory VL 2		Compiler Construction VL 2
Discrete Algebraic Structures GÜ 2	Automata Theory and Formal Languages GÜ 2	Databases - Exercise GÜ 2	Computability and Complexity Theory GÜ 2		Compiler Construction GÜ 2

LP 7–12

Functional Programming	Foundations of Management	Computer Engineering	Stochastics	Seminars Computer Science	Algebra and Control
Functional Programming VL 2	Introduction to Management VL 3	Computer Engineering VL 3	Stochastics VL 2	Introductory Seminar Computer Science II SE 2	Algebra and Control VL 2
Functional Programming HÜ 2	Management Tutorial GÜ 2	Computer Engineering GÜ 1	Stochastics GÜ 2	Introductory Seminar Computer Science I SE 2	Algebra and Control GÜ 2
Functional Programming GÜ 2					

LP 13–18

Procedural Programming for Computer Engineers	Programming Paradigms	Computernetworks and Internet Security	Software Engineering	Practical module 5 (dual study program, Bachelor's degree)	Solvers for Sparse Linear Systems
Procedural Programming for Computer Engineers VL 2	Programming Paradigms VL 2	Computer Networks and Internet Security VL 3	Software Engineering VL 2	Practical term 5 0	Solvers for Sparse Linear Systems VL 2
Procedural Programming for Computer Engineers HÜ 1	Programming Paradigms HÜ 1	Computer Networks and Internet Security GÜ 1	Software Engineering GÜ 2		Solvers for Sparse Linear Systems GÜ 2
Procedural Programming for Computer Engineers PR 2	Programming Paradigms PR 2				

LP 19–24

Mathematics I (EN)	Mathematics II (EN)	Algorithms and Data Structures	Graph Theory and Optimization	Introduction to Information Security	Bachelor thesis (dual study program)
Mathematics I VL 4	Mathematics II VL 4	Algorithms and Data Structures VL 4	Graph Theory and Optimization VL 2	Introduction to Information Security VL 2	
Mathematics I HÜ 2	Mathematics II HÜ 2	Algorithms and Data Structures GÜ 1	Graph Theory and Optimization GÜ 2	Introduction to Information Security GÜ 2	
Mathematics I GÜ 2	Mathematics II GÜ 2				

LP 25–32

Practical module 1 (dual study program, Bachelor's degree)	Practical module 2 (dual study program, Bachelor's degree)	Mathematics III (EN)	Practical module 4 (dual study program, Bachelor's degree)	Combinatorial Structures and Algorithms
Practical term 1 0	Practical term 2 0	Analysis III VL 2	Practical term 4 0	Combinatorial Structures and Algorithms VL 3
		Analysis III HÜ 1		Combinatorial Structures and Algorithms GÜ 1
		Analysis III GÜ 1		
		Differential Equations 1 VL 2		
		Differential Equations 1 HÜ 1		
		Differential Equations 1 GÜ 1		

LP 33–38

Practical module 3 (dual study program, Bachelor's degree)
Practical term 3 0

Linking theory and practice (dual study program, Bachelor's degree) (from catalogue) - 6LP

Technical Complementary Course I for CSBS - 6LP

Technical Complementary Course II for CSBS - 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.