

Course of Study Data Science (Study Cohort w21)

Sample course plan C Bachelor Data Science (DSBS)

		Core qualification Compulsory		Specialisation Compulsory		Focus Compulsory		Thesis Compulsory	
		Core qualification Elective Compulsory		Specialisation Elective Compulsory		Focus Elective Compulsory		Interdisciplinary complement	
Specialisation	Logistics	Semester 1	Semester 2	Semester 3	Semester 4	Semester 5	Semester 6		
		Form Hrs/wk	Form Hrs/wk	Form Hrs/wk	Form Hrs/wk	Form Hrs/wk	Form Hrs/wk	Form Hrs/wk	Form Hrs/wk
1	Discrete Algebraic Structures		Automata Theory and Formal Languages	Databases	Signals and Systems	Introduction to Information Security	Seminars Data Science		
2	Discrete Algebraic Structures VL 2	Automata Theory and Formal Languages VL 2	Databases VL 4	Signals and Systems VL 3	Introduction to Information Security VL 2	Seminar Data Science I SE 2			
3	Discrete Algebraic Structures GÜ 2	Automata Theory and Formal Languages GÜ 2	Databases PBL 1	Signals and Systems GÜ 2	Introduction to Information Security GÜ 2	Seminar Data Science II SE 2			
4									
5									
6									
7	Procedural Programming for Computer Engineers	Stochastics	Numerical Mathematics I	Foundations of Management	Data Mining	Introduction into Medical Technology and Systems			
8	Procedural Programming for Computer Engineers VL 1	Stochastics VL 2	Numerical Mathematics I VL 2	Introduction to Management VL 3	Data Mining VL 2	Introduction into Medical Technology and Systems VL 2			
9	Procedural Programming for Computer Engineers HÜ 1	Stochastics GÜ 2	Numerical Mathematics I GÜ 2	Management Tutorial GÜ 2	Data Mining GÜ 2	Introduction into Medical Technology and Systems PS 2			
10	Procedural Programming for Computer Engineers PR 2					Introduction into Medical Technology and Systems HÜ 1			
11									
12									
13	Mathematics I (EN)	Programming Paradigms	Algorithms and Data Structures	Graph Theory and Optimization	Practical Course Data Science	Bachelor Thesis			
14	Analysis I VL 2	Programming Paradigms VL 2	Algorithms and Data Structures VL 4	Graph Theory and Optimization VL 2	Practical Course Data Science PR 8				
15	Analysis I HÜ 1	Programming Paradigms HÜ 1	Algorithms and Data Structures GÜ 1	Graph Theory and Optimization GÜ 2					
16	Analysis I GÜ 1	Programming Paradigms PR 2							
17	Linear Algebra I VL 2								
18	Linear Algebra I HÜ 1								
19	Linear Algebra I GÜ 1								
20		Mathematics II (EN)	Statistics	Scientific Programming	Ethics in Information Technology				
21		Analysis II VL 2	Statistics VL 3	Scientific Programming VL 3	Ethics in Information Technology VL 2				
22	Traffic systems and handling technology	Analysis II HÜ 1	Statistics GÜ 1	Scientific Programming GÜ 2	Ethics in Information Technology SE 2				
23	Transport- and Handling-Technology VL 2	Analysis II GÜ 1							
24	Transport- and Handling-Technology GÜ 2	Linear Algebra II VL 2							
25		Linear Algebra II HÜ 1							
26		Linear Algebra II GÜ 1							
27			Mathematics III (EN)	Machine Learning	Image Processing				
28			Analysis III VL 2	Machine Learning VL 2	Image Processing VL 2				
29			Analysis III HÜ 1	Machine Learning GÜ 2	Image Processing GÜ 2				
30			Analysis III GÜ 1						
31		Logistics Management	Differential Equations 1 VL 2						
32		Logistics Economics PBL 3	Differential Equations 1 HÜ 1						
		Introduction into Production Logistics VL 2	Differential Equations 1 GÜ 1						
Non-technical 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.

