

Course of Study Data Science (Study Cohort w21)

Sample course plan E Bachelor Data Science (DSBS)

Specialisation: Electrical Engineering		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
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	Semiconductor Circuit Design
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	Semiconductor Circuit Design VL 3
9	Procedural Programming for Computer Engineers HÜ 1	Stochastics GÜ 2	Numerical Mathematics I GÜ 2	Management Tutorial GÜ 2	Data Mining GÜ 2	Semiconductor Circuit Design GÜ 1
10	Procedural Programming for Computer Engineers PR 2					
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	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	Analysis II VL 2	Statistics VL 3	Scientific Programming VL 3	Ethics in Information Technology VL 2	
22	Electrical Engineering I: Direct Current Networks VL 3	Analysis II HÜ 1	Statistics GÜ 1	Scientific Programming GÜ 2	Ethics in Information Technology SE 2	
23	and Electromagnetic Fields	Analysis II GÜ 1				
24	Electrical Engineering I: Direct Current Networks GÜ 2	Linear Algebra II VL 2				
25	and Electromagnetic Fields	Linear Algebra II HÜ 1				
26		Linear Algebra II GÜ 1	Mathematics III (EN)	Machine Learning	Computer Engineering	
27			Analysis III VL 2	Machine Learning VL 2	Computer Engineering VL 3	
28		Electrical Engineering II: Alternating Current Networks and Basic Devices	Analysis III HÜ 1	Machine Learning GÜ 2	Computer Engineering GÜ 1	
29		Electrical Engineering II: Alternating Current Networks and Basic Devices VL 3	Analysis III GÜ 1			
30		Electrical Engineering II: Alternating Current Networks and Basic Devices GÜ 2	Differential Equations 1 VL 2			
31			Differential Equations 1 HÜ 1			
32			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.

