Course of Study Data Science (Study Cohort w21)

Sample	nple course plan D Bachelor Data Science (DSBS)							Core Qualification Elective Compulsory Specialisation Elective Compulsory Focus Elective Compulsory Interdisciplinary complement				
Special	isation ₁ Mechanics	Form Hrs/wk	Semester 2	Form Hrs/wk	Semester 3	Form Hrs/wk	Semester 4	Form Hrs/wk	Semester 5	Form Hrs/wk	Semester 6	Form Hrs/wk
1	Discrete Algebraic Structures		Automata Theory and Formal Languages		Databases		Signals and Systems		Introduction to Information Security		Seminars Computer Science	
2	Discrete Algebraic Structures	VL 2	Automata Theory and Formal Languages	VL 2	Databases	VL 3	Signals and Systems	VL 3	Introduction to Information Security	VL 2	Introductory Seminar Computer Science II	SE 2
3	Discrete Algebraic Structures	GÜ 2	Automata Theory and Formal Languages	GÜ 2	Databases	GÜ 1	Signals and Systems	GÜ 2	Introduction to Information Security	GÜ 2	Introductory Seminar Computer Science I	SE 2
4												
5												
6												
7	Procedural Programming for Computer Engi	neers	Stochastics		Numerical Mathematics I		Foundations of Management	t	Data Mining		Ethics in Information Technology	
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	Ethics in Information Technology	VL 2
9	Procedular Programming for Computer Engineers		Stochastics	GÜ 2	Numerical Mathematics I	GÜ 2	Management Tutorial	GÜ 2	Data Mining	PBL 2	Ethics in Information Technology	SE 2
10	Procedural Programming for Computer Engineers	PR 2										
11												
12												
13	Mathematics I (EN)		Programming Paradigms		Algorithms and Data Structures		Graph Theory and Optimizat	ion	Machine Learning II		Computability and Complexity Theory	
14	Analysis I	VL 2	Programming Paradigms	VL 2	Algorithms and Data Structures	VL 4	Graph Theory and Optimization	VL 2	Machine Learning II	VL 2	Computability and Complexity Theory	VL 2
15	Analysis I	HŪ 1	Programming Paradigms	HÜ 1	Algorithms and Data Structures	GÜ 1	Graph Theory and Optimization	GÜ 2	Machine Learning II	GÜ 2	Computability and Complexity Theory	GÜ 2
	Analysis I	GÜ 1	Programming Paradigms	PR 2								
16	Linear Algebra I Linear Algebra I	VL 2 HÜ 1										
17	Linear Algebra I	GÜ 1										
18												
19			Mathematics II (EN)		Statistics		Scientific Programming		Simulation of Transport and Handling Sy	stems	Bachelor Thesis	
20			Analysis II	VL 2	Statistics	VL 3	Scientific Programming	VL 3	Simulation of Transport and Handling Systems			
21	Mechanics I (Statics)		Analysis II	HÜ 1 GÜ 1	Statistics	GÜ 1	Scientific Programming	GÜ 2	Simulation of Transport and Handling Systems	GÜ 3		
22	Mechanics I	VL 2	Analysis II Linear Algebra II	VL 2								
	Mechanics I	GÜ 2	Linear Algebra II	HÜ 1								
23	Mechanics I	HŪ 1	Linear Algebra II	GÜ 1								
24												
25					Mathematics III (EN)		Machine Learning I					
26					Analysis III	VL 2	Machine Learning I	VL 2				
27			Mechanics II: Mechanics of Materials		Analysis III Analysis III	HÜ 1 GÜ 1	Machine Learning I	GÜ 2				
28			Mechanics II	VL 2	Differential Equations 1	VL 2						
			Mechanics II	GÜ 2	Differential Equations 1	HÜ 1						
29			Mechanics II	HÜ 2	Differential Equations 1	GÜ 1						
30												
31												
32												
	Non-technical Courses for Bachelor	c (from ca	talogue) - 6l P									

The choice of courses from the catalogue is flexible (depends on the semestral work load), provided the necessary number of required credits is reached.