

Course of Study Data Science (Study Cohort w21)

Sample course plan A Bachelor Data Science (DSBS) Dual study program

Specialisation: 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 Discrete Algebraic Structures Discrete Algebraic Structures	VL 2	Automata Theory and Formal Languages Automata Theory and Formal Languages Automata Theory and Formal Languages	VL 2	Databases Databases Databases	VL 3	Signals and Systems Signals and Systems Signals and Systems	VL 3	Introduction to Information Security Introduction to Information Security Introduction to Information Security	VL 2	Seminars Computer Science Introductory Seminar Computer Science II Introductory Seminar Computer Science I	SE 2
2		GÜ 2		GÜ 2		GÜ 1		GÜ 2		GÜ 2		SE 2
3												
4												
5												
6												
7	Procedural Programming for Computer Engineers Procedural Programming for Computer Engineers Procedural Programming for Computer Engineers Procedural Programming for Computer Engineers	VL 1	Stochastics Stochastics Stochastics	VL 2	Numerical Mathematics I Numerical Mathematics I Numerical Mathematics I	VL 2	Foundations of Management Introduction to Management Management Tutorial	VL 3	Data Mining Data Mining Data Mining	VL 2	Ethics in Information Technology Ethics in Information Technology Ethics in Information Technology	VL 2
8		HÜ 1		GÜ 2		GÜ 2		GÜ 2		PBL 2		SE 2
9		PR 2										
10												
11												
12												
13	Mathematics I (EN) Analysis I Analysis I Analysis I Linear Algebra I Linear Algebra I Linear Algebra I	VL 2	Programming Paradigms Programming Paradigms Programming Paradigms Programming Paradigms	VL 2	Algorithms and Data Structures Algorithms and Data Structures Algorithms and Data Structures	VL 4	Graph Theory and Optimization Graph Theory and Optimization Graph Theory and Optimization	VL 2	Machine Learning II Machine Learning II Machine Learning II	VL 2		
14		HÜ 1		HÜ 1		GÜ 1		GÜ 1		GÜ 2	GÜ 2	
15		GÜ 1		PR 2								
16		VL 2										
17		HÜ 1										
18		GÜ 1										
19			Mathematics II (EN) Analysis II Analysis II Analysis II	VL 2	Statistics Statistics Statistics	VL 3	Scientific Programming Scientific Programming Scientific Programming	VL 3	Functional Programming Functional Programming Functional Programming Functional Programming	VL 2		
20		HÜ 1		GÜ 1		GÜ 1		GÜ 2		HÜ 2	GÜ 2	
21		GÜ 1										
22		VL 2		VL 2								
23	GÜ 2	HÜ 1										
24	HÜ 1	GÜ 1										
25		Mathematics III (EN) Analysis III Analysis III Analysis III	Mathematics II: Mechanics of Materials Mechanics II Mechanics II Mechanics II	VL 2	Machine Learning I Machine Learning I Machine Learning I	VL 2	Engineering Mechanics III (Dynamics) Engineering Mechanics III Engineering Mechanics III Engineering Mechanics III	VL 3				
26	HÜ 1			HÜ 1		GÜ 2		GÜ 2	HÜ 1			
27	GÜ 1			GÜ 1								
28	VL 2			VL 2								
29	HÜ 1			HÜ 1								
30	GÜ 1			GÜ 1								
31												
32												
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.

