Course of Study Data Science (Study Cohort w21)

Legend

Core Qualification Compulsory	Specialisation Compulsory	Focus Compulsory	Thesis Compulsory
Core Qualification Elective Compulsory	Specialisation Elective Compulsory	Focus Elective Compulsory	Interdisciplinary complement

Sample course plan A Bachelor Data Science (DSBS)
Specialisation Medicine

LP						
1	**Discrete Algebraic Structures** Discrete Algebraic Structures VL 2 Discrete Algebraic Structures GÜ 2	**Automata Theory and Formal Languages** Automata Theory and Formal Languages VL 2 Automata Theory and Formal Languages GÜ 2	**Databases** Databases VL 3 Databases GÜ 1	**Signals and Systems** Signals and Systems VL 3 Signals and Systems GÜ 2	**Introduction to Information Security** Introduction to Information Security VL 2 Introduction to Information Security GÜ 2	**Seminars Computer Science** Introductory Seminar Computer Science II SE 2 Introductory Seminar Computer Science I SE 2
2						
3						
4						
5						
6						
7	**Procedural Programming for Computer Engineers** Procedural Programming for Computer Engineers VL 1 Procedular Programming for Computer Engineers HÜ 1 Procedural Programming for Computer Engineers PR 2	**Stochastics** Stochastics VL 2 Stochastics GÜ 2	**Numerical Mathematics I** Numerical Mathematics I VL 2 Numerical Mathematics I GÜ 2	**Foundations of Management** Introduction to Management VL 3 Management Tutorial GÜ 2	**Data Mining** Data Mining VL 2 Data Mining PBL 2	**Ethics in Information Technology** Ethics in Information Technology VL 2 Ethics in Information Technology SE 2
8						
9						
10						
11						
12						
13	**Mathematics I (EN)** Analysis I VL 2 Analysis I HÜ 1 Analysis I GÜ 1 Linear Algebra I VL 2 Linear Algebra I HÜ 1 Linear Algebra I GÜ 1	**Programming Paradigms** Programming Paradigms VL 2 Programming Paradigms HÜ 1 Programming Paradigms PR 2	**Algorithms and Data Structures** Algorithms and Data Structures VL 4 Algorithms and Data Structures GÜ 1	**Graph Theory and Optimization** Graph Theory and Optimization VL 2 Graph Theory and Optimization GÜ 2	**Machine Learning II** Machine Learning II VL 2 Machine Learning II GÜ 3	**Bachelor Thesis**
14						
15						
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19		**Mathematics II (EN)** Analysis II VL 2 Analysis II HÜ 1 Analysis II GÜ 1 Linear Algebra II VL 2 Linear Algebra II HÜ 1 Linear Algebra II GÜ 1	**Statistics** Statistics VL 3 Statistics GÜ 1	**Scientific Programming** Scientific Programming VL 3 Scientific Programming GÜ 2	**Functional Programming** Functional Programming VL 2 Functional Programming HÜ 2 Functional Programming GÜ 2	
20						
21	**MED II: Introduction to Biochemistry and Molecular Biology** Introduction to Biochemistry and Molecular Biology VL 2					
22						
23						
24						
25			**Mathematics III (EN)** Analysis III VL 2 Analysis III HÜ 1 Analysis III GÜ 1 Differential Equations 1 VL 2 Differential Equations 1 HÜ 1 Differential Equations 1 GÜ 1	**Machine Learning I** Machine Learning I VL 2 Machine Learning I GÜ 2	**Engineering Mechanics III (Dynamics)** Engineering Mechanics III VL 3 Engineering Mechanics III GÜ 2 Engineering Mechanics III HÜ 1	
26						
27		**MED I: Introduction to Anatomy** Introduction to Anatomy VL 2				
28						
29						
30		**MED I: Introduction to Radiology and Radiation Therapy** Introduction to Radiology and Radiation Therapy VL 2				
31				**MED II: Introduction to Physiology** Introduction to Physiology VL 2		
32						
33						
	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.