Course of Study Data Science (Study Cohort w21)

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

Legend

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

LP	Semester 1	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 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**			**Computability and Complexity Theory**		
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	Computability and Complexity Theory	VL	2
9	Procedular Programming for Computer Engineers	HÜ	1	Stochastics	GÜ	2	Numerical Mathematics I	GÜ	2	Management Tutorial	GÜ	2	Data Mining	GÜ	2	Computability and Complexity Theory	GÜ	2
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	**Mathematics II (EN)**			**Statistics**			**Scientific Programming**			**Ethics in Information Technology**					
20				Analysis II	VL	2	Statistics	VL	3	Scientific Programming	VL	3	Ethics in Information Technology	VL	2			
21	**MED II: Introduction to Biochemistry and Molecular Biology**			Analysis II	HÜ	1	Statistics	GÜ	1	Scientific Programming	GÜ	2	Ethics in Information Technology	SE	2			
22	Introduction to Biochemistry and Molecular Biology	VL	2	Analysis II	GÜ	1												
23				Linear Algebra II	VL	2												
24				Linear Algebra II	HÜ	1												
25				Linear Algebra II	GÜ	1	**Mathematics III (EN)**			**Machine Learning**			**Simulation of Transport and Handling Systems**					
26							Analysis III	VL	2	Machine Learning	VL	2	Simulation of Transport and Handling Systems	VL	1			
27				**MED I: Introduction to Anatomy**			Analysis III	HÜ	1	Machine Learning	GÜ	2	Simulation of Transport and Handling Systems	GÜ	3			
28				Introduction to Anatomy	VL	2	Analysis III	GÜ	1									
29							Differential Equations 1	VL	2									
30				**MED I: Introduction to Radiology and Radiation Therapy**			Differential Equations 1	HÜ	1									
31				Introduction to Radiology and Radiation Therapy	VL	2	Differential Equations 1	GÜ	1	**MED II: Introduction to Physiology**								
32										Introduction to Physiology	VL	2						
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.