Course of Study Data Science (Study Cohort w21)

Sample course plan E Bachelor Data Science (DSBS)

Specialisation Medicine

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

Rows 1–6

Discrete Algebraic Structures	**Automata Theory and Formal Languages**	**Databases**	**Signals and Systems**	**Introduction to Information Security**	**Seminars Computer Science**
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
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

Rows 7–12

Procedural Programming for Computer Engineers	**Stochastics**	**Numerical Mathematics I**	**Foundations of Management**	**Data Mining**	**Ethics in Information Technology**
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
Procedual Programming for Computer Engineers HÜ 1	Stochastics GÜ 2	Numerical Mathematics I GÜ 2	Management Tutorial GÜ 2	Data Mining PBL 2	Ethics in Information Technology SE 2
Procedural Programming for Computer Engineers PR 2					

Rows 13–18

Mathematics I (EN)	**Programming Paradigms**	**Algorithms and Data Structures**	**Graph Theory and Optimization**	**Machine Learning II**	**Semiconductor Circuit Design**
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	Semiconductor Circuit Design VL 3
Analysis I HÜ 1	Programming Paradigms HÜ 1	Algorithms and Data Structures GÜ 1	Graph Theory and Optimization GÜ 2	Machine Learning II GÜ 3	Semiconductor Circuit Design GÜ 1
Analysis I GÜ 1	Programming Paradigms PR 2				
Linear Algebra I VL 2					
Linear Algebra I HÜ 1					
Linear Algebra I GÜ 1					

Rows 19–23

Mathematics II (EN)	**Statistics**	**Scientific Programming**	**Computer Engineering**	**Bachelor Thesis**
Analysis II VL 2	Statistics VL 3	Scientific Programming VL 3	Computer Engineering VL 3	
Analysis II HÜ 1	Statistics GÜ 1	Scientific Programming GÜ 2	Computer Engineering GÜ 1	
Analysis II GÜ 1				
Linear Algebra II VL 2				
Linear Algebra II HÜ 1				
Linear Algebra II GÜ 1				

MED II: Introduction to Biochemistry and Molecular Biology
Introduction to Biochemistry and Molecular Biology   VL   2

Rows 24–33

Mathematics III (EN)	**Machine Learning I**
Analysis III VL 2	Machine Learning I VL 2
Analysis III HÜ 1	Machine Learning I GÜ 2
Analysis III GÜ 1	
Differential Equations 1 VL 2	
Differential Equations 1 HÜ 1	
Differential Equations 1 GÜ 1	

MED I: Introduction to Anatomy
Introduction to Anatomy   VL   2

MED I: Introduction to Radiology and Radiation Therapy
Introduction to Radiology and Radiation Therapy   VL   2

MED II: Introduction to Physiology
Introduction to Physiology   VL   2

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.