

# Course of Study Data Science (Study Cohort w21)

Sample course plan E Bachelor Data Science (DSBS)

Specialisation Mechanics														
1	<b>Discrete Algebraic Structures</b> Discrete Algebraic Structures VL 2 Discrete Algebraic Structures GÜ 2		<b>Automata Theory and Formal Languages</b> Automata Theory and Formal Languages VL 2 Automata Theory and Formal Languages GÜ 2		<b>Databases</b> Databases VL 3 Databases GÜ 1		<b>Signals and Systems</b> Signals and Systems VL 3 Signals and Systems GÜ 2		<b>Introduction to Information Security</b> Introduction to Information Security VL 2 Introduction to Information Security GÜ 2		<b>Seminars Computer Science</b> Introductory Seminar Computer Science II SE 2 Introductory Seminar Computer Science I SE 2			
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7	<b>Procedural Programming for Computer Engineers</b> Procedural Programming for Computer Engineers VL 1 Procedural Programming for Computer Engineers HÜ 1 Procedural Programming for Computer Engineers PR 2		<b>Stochastics</b> Stochastics VL 2 Stochastics GÜ 2		<b>Numerical Mathematics I</b> Numerical Mathematics I VL 2 Numerical Mathematics I GÜ 2		<b>Foundations of Management</b> Introduction to Management VL 3 Management Tutorial GÜ 2		<b>Data Mining</b> Data Mining VL 2 Data Mining PBL 2		<b>Ethics in Information Technology</b> Ethics in Information Technology VL 2 Ethics in Information Technology SE 2			
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13	<b>Mathematics I (EN)</b> 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		<b>Programming Paradigms</b> Programming Paradigms VL 2 Programming Paradigms HÜ 1 Programming Paradigms PR 2		<b>Algorithms and Data Structures</b> Algorithms and Data Structures VL 4 Algorithms and Data Structures GÜ 1		<b>Graph Theory and Optimization</b> Graph Theory and Optimization VL 2 Graph Theory and Optimization GÜ 2		<b>Machine Learning II</b> Machine Learning II VL 2 Machine Learning II GÜ 3		<b>Semiconductor Circuit Design</b> Semiconductor Circuit Design VL 3 Semiconductor Circuit Design GÜ 1			
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19			<b>Mechanics I (Statics)</b> Mechanics I VL 2 Mechanics I GÜ 2 Mechanics I HÜ 1		<b>Mathematics II (EN)</b> 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		<b>Statistics</b> Statistics VL 3 Statistics GÜ 1		<b>Scientific Programming</b> Scientific Programming VL 3 Scientific Programming GÜ 2		<b>Computer Engineering</b> Computer Engineering VL 3 Computer Engineering GÜ 1		<b>Bachelor Thesis</b>	
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25	<b>Mechanics II: Mechanics of Materials</b> Mechanics II VL 2 Mechanics II GÜ 2 Mechanics II HÜ 2				<b>Mathematics III (EN)</b> 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		<b>Machine Learning I</b> Machine Learning I VL 2 Machine Learning I GÜ 2							
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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.

