

Course of Study Data Science (Study Cohort w21)

Sample course plan B Bachelor Data Science (DSBS)

| Specialisation Mechanics | | | | | | | | | | | | | | |
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| 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 | | | |
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| 7 | Procedural Programming for Computer Engineers Procedural Programming for Computer Engineers VL 1 Procedural 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 | | | |
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| 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 | | Enhanced Fundamentals of Materials Science Materials for Energy Storage and Conversion VL 2 Enhanced Fundamentals: Ceramics and Polymers VL 2 Enhanced Fundamentals: Ceramics and Polymers HÜ 1 | | | |
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| 19 | | | Mechanics I (Statics) Mechanics I VL 2 Mechanics I GÜ 2 Mechanics I HÜ 1 | | 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 | | Introduction to Communications and Random Processes Introduction to Communications and Random Processes VL 3 Introduction to Communications and Random Processes HÜ 1 Introduction to Communications and Random Processes GÜ 1 | | Bachelor Thesis | |
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| 22 | | | | | | | | | | | | | | |
| 23 | Mechanics II: Mechanics of Materials Mechanics II VL 2 Mechanics II GÜ 2 Mechanics II HÜ 2 | | 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 | | | | | | | | | |
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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.

