

Course of Study Data Science (Study Cohort w23)

Sample course plan J Bachelor Data Science (DSBS)

Specialisation I. Mathematics/Computer Science, Specialisation II. Application

| | Core Qualification Compulsory | | Specialisation Compulsory | | Focus Compulsory | | Thesis Compulsory | | | | | |
|----|--|------|---|------|---------------------------------------|------|--|------|--|-------|---|-------|
| | Core Qualification Elective Compulsory | | Specialisation Elective Compulsory | | Focus Elective Compulsory | | Interdisciplinary complement | | | | | |
| 1 | Discrete Algebraic Structures | | Automata Theory and Formal Languages | | Databases | | Signals and Systems | | Introduction to Information Security | | Ethics in Information Technology | |
| 2 | 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 | Ethics in Information Technology | VL 2 |
| 3 | Discrete Algebraic Structures | GÜ 2 | Automata Theory and Formal Languages | GÜ 2 | Databases - Exercise | GÜ 2 | Signals and Systems | GÜ 2 | Introduction to Information Security | GÜ 2 | Ethics in Information Technology | SE 2 |
| 4 | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | |
| 7 | Procedural Programming for Computer Engineers | | Stochastics | | Numerical Mathematics I | | Graph Theory and Optimization | | Data Mining | | Logistics Management | |
| 8 | Procedural Programming for Computer Engineers | VL 2 | Stochastics | VL 2 | Numerical Mathematics I | VL 2 | Graph Theory and Optimization | VL 2 | Data Mining | VL 2 | Logistics Economics | PBL 3 |
| 9 | Procedural Programming for Computer Engineers | HÜ 1 | Stochastics | GÜ 2 | Numerical Mathematics I | GÜ 2 | Graph Theory and Optimization | GÜ 2 | Data Mining | PBL 2 | Introduction into Production Logistics | VL 2 |
| 10 | Procedural Programming for Computer Engineers | PR 2 | | | | | | | | | | |
| 11 | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | |
| 13 | Mathematics I (EN) | | Foundations of Management | | Algorithms and Data Structures | | Seminars Computer Science | | Machine Learning II | | Bachelor Thesis | |
| 14 | Mathematics I | VL 4 | Introduction to Management | VL 3 | Algorithms and Data Structures | VL 4 | Introductory Seminar Computer Science II | SE 2 | Machine Learning II | VL 2 | | |
| 15 | Mathematics I | HÜ 2 | Management Tutorial | GÜ 2 | Algorithms and Data Structures | GÜ 1 | Introductory Seminar Computer Science I | SE 2 | Machine Learning II | GÜ 3 | | |
| 16 | Mathematics I | GÜ 2 | | | | | | | | | | |
| 17 | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | |
| 20 | | | Programming Paradigms | | Statistics | | Scientific Programming | | Introduction to Communications and Random Processes | | Bachelor Thesis | |
| 21 | Introduction to Data Science | | Programming Paradigms | VL 2 | Statistics | VL 3 | Scientific Programming | VL 3 | Introduction to Communications and Random Processes | VL 3 | | |
| 22 | Introduction to Data Science | VL 2 | Programming Paradigms | HÜ 1 | Statistics | GÜ 1 | Scientific Programming | GÜ 2 | Introduction to Communications and Random Processes | HÜ 1 | | |
| 23 | Introduction to Data Science | SE 2 | Programming Paradigms | PR 2 | | | | | Introduction to Communications and Random Processes | GÜ 1 | | |
| 24 | | | | | | | | | | | | |
| 25 | | | Mathematics II (EN) | | Mathematics III (EN) | | Machine Learning I | | Image Processing | | Bachelor Thesis | |
| 26 | | | Mathematics II | VL 4 | Analysis III | VL 2 | Machine Learning I | VL 2 | Image Processing | VL 2 | | |
| 27 | | | Mathematics II | HÜ 2 | Analysis III | HÜ 1 | Machine Learning I | GÜ 3 | Image Processing | GÜ 2 | | |
| 28 | | | Mathematics II | GÜ 2 | Analysis III | GÜ 1 | | | | | | |
| 29 | | | | | Differential Equations 1 | VL 2 | | | | | | |
| 30 | | | | | Differential Equations 1 | HÜ 1 | | | | | | |
| 31 | | | | | Differential Equations 1 | GÜ 1 | | | | | | |
| 32 | | | | | | | | | | | | |

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.

