

# Data Science Curriculum (full-time)

Valid from Autumn Semester 2023/2024 / 16.02.2023

Semester	Context Modules	Project Modules	Subject-Specific Modules					Mathematics and Natural Science Modules		
Semester 1	Communication Competence 1 DE/EN 2	Software Projects DE 4	Computer Science Programming 1 DE 4	Databases DE 4	Explorative Data Analysis DE 4	Data Science Fundamentals DE 4	Linear Algebra 1 DE 4	Analysis 1 DE 4		
Semester 2	Communication Competence 2 DE/EN 2	Data Processing with R DE 4	Computer Science Programming 2 DE 4	Data Engineering 1 DE 4	Probability Calculations DE 4	Visualisation and Data Science Storytelling DE 4	Linear Algebra 2 DE 4	Analysis 2 DE 4		
Semester 3	Communication Competence 3 DE/EN 2	Front End, Web and Software Engineering DE 4	Operating Systems and Infrastructure DE 4		Data Products and Services EN 4	Machine Learning and Data Mining DE 4	Basics of statistics DE 4	Analysis 3 DE 4	Electronics and Digital Technology: Basic Principles DE 4	
Semester 4	Digitisation of Economic Systems DE 2	Big Data Project DE 4	Introduction to Natural Language Processing DE 4	Data Engineering 2 DE 4	Digital Entrepreneurship EN 4	Machine Learning and Data Mining 2 DE 4	Statistical Modelling DE 4	Numerics DE 4		
Semester 5	Elective Module Context 2	Elective Module Context 2	Project Thesis: Data Science DE 6	Elective Module 4	Elective Module 4	Elective Module 4	Elective Module 4	Optional Module Cross-Curricular 4		
Semester 6	Elective Module Context 2	Bachelor Thesis: Data Science DE 12	Elective Module 4	Elective Module 4	Elective Module 4	Elective Module 4				

Module Name

Language of Instruction

Credits