

Engineering and Management 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 6	Elective Module Context 2	Bachelor Thesis: Engineering and Management DE/EN 12	Specialisation Module 6 4	Specialisation Module 8 4	Specialisation Module 10 4	Specialisation Module 12 4				
Semester 5	Elective Module Context 2	Elective Module Context 2	Project Thesis: Engineering and Management DE/EN 6	Specialisation Module 5 4	Specialisation Module 7 4	Specialisation Module 9 4	Specialisation Module 11 4	Elective Module Cross-Curricular 4		
Semester 4	Digitisation of Economic Systems DE 2	Case Studies on Operations Management and Data Analysis DE 4	Statistical Data Mining DE/EN 4	Specialisation Modul 2 4	Specialisation Module 4 4	Stochastic Processes DE 4	Statistical Modelling DE/EN 4		Numerics DE 4	
Semester 3	Communication Competence 3 DE/EN 2	Case Studies on Process Automation DE 4		Specialisation Module 1 4	Specialisation Module 3 4	Basics of Statistics DE/EN 4	Financial Enterprise Modeling DE/EN 4		Analysis 3 DE 4	Physik 3: Factory Physics DE/EN 4
Semester 2	Communication Competence 2 DE/EN 2	Case Studies Stock and Flow - Systems 2 DE 4	Computer Science Programming 2 DE 4	Business Processes 2 DE 4		Probability Calculations DE 4		Linear Algebra 2 DE 4	Analysis 2 DE 4	Physics 2 DE 4
Semester 1	Communication Competence 1 DE/EN 2	Case Studies Stock and Flow - Systems 1 DE 4	Computer Science Programming 1 DE 4	Business Processes 1 DE 4		Explorative Data Analysis DE 4		Linear Algebra 1 DE 4	Analysis 1 DE 4	Physics 1 DE 4

Module Name

Language of Instruction

Credits

Overview of Engineering and Management specialisations

From your second year of study, you will specialise in one of the following three areas:

Industrial Engineering				Data and Service Engineering				Business Mathematics			
Semester 6	Advanced Operations Management DE	Quality Control - Methods and Instruments DE	Enterprise Resource Planning - Production and Logistics DE	Semester 6	Data-Driven Decision Support Systems DE	Methods of Quantitative Marketing DE	Service Engineering Labor DE	Semester 6	Survey Design and Analysis DE	Risk Engineering DE	Empirical Modelling of Financial Markets and Financial Products DE
Semester 5	Simulation of Business Processes DE/EN	Smart Factory DE	Logistics and Supply Chain Management DE	Semester 5	Simulation of Business Processes DE/EN	Advanced Regression Modelling DE/EN	Service Engineering Basics EN	Semester 5	Adaptive Modelle DE	Mathematics of Financial Markets 2 DE	Advanced Regression Modelling DE/EN
Semester 4	Production Planning and Control DE	Service Operations Management DE		Semester 4	Production Planning and Control DE	Service Operations Management DE		Semester 4	Time Series DE	Mathematics of Financial Markets 1 DE	
Semester 3	Operations Management Grundlagen DE	Operations Research DE		Semester 3	Operations Management Fundamentals DE	Operations Research DE		Semester 3	Economics DE	Actuarial Mathematics DE	