

# Engineering and Management Curriculum (full-time)

Valid from Autumn Semester 2021/2022 / 12.02.2021

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
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
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
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
	Context Modules	Project Modules	Subject-Specific Modules	Mathematics and Natural Science Modules

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			
Semester 6	Advanced Operations Management DE	Quality Control - Methods and Instruments DE	Enterprise Resource Planning - Production and Logistics DE
Semester 5	Simulation of Business Processes DE/EN	Smart Factory DE	Logistics and Supply Chain Management DE
Semester 4	Production Planning and Control DE	Service Operations Management DE	
Semester 3	Operations Management Grundlagen DE	Operations Research DE	

Data and Service Engineering			
Semester 6	Data-Driven Decision Support Systems DE	Methods of Quantitative Marketing DE	Service Engineering Labor DE
Semester 5	Simulation of Business Processes DE/EN	Advanced Regression Modelling DE/EN	Service Engineering Basics EN
Semester 4	Production Planning and Control DE	Service Operations Management DE	
Semester 3	Operations Management Fundamentals DE	Operations Research DE	

Business Mathematics			
Semester 6	Survey Design and Analysis DE	Risk Engineering DE	Empirical Modelling of Financial Markets and Financial Products DE
Semester 5	Adaptive Modelle DE	Mathematics of Financial Markets 2 DE	Advanced Regression Modelling DE/EN
Semester 4	Time Series DE	Mathematics of Financial Markets 1 DE	
Semester 3	Economics DE	Actuarial Mathematics DE	