School of Engineering

Mechanical Engineering Curriculum (full-time)

Valid from Autumn Semester 2025/2026 / 21.02.2025

Semester 6	Elective Module Context 2		Bachelor Thesis: Mechanical Engineering DE/EN 12	Specialisation Module a2 4	Specialisation Module b2 4	Electrical Engineering DE 4	Elective Module 4					
Semester 5	Elective Module Context 2	Elective Module Context 2	Project Thesis: Mechanical Engineering DE/EN 6	Specialisation Module a1 4	Specialisation Module b1 4	Mechanical Dynamics DE/EN 4	Elective Module 4	Elective Module Cross-Curricula 4				
Semester 4	Elective Module Communication 2		Project Module 4 DE/EN 4	Machine Elements 3 DE 2	Applied Heat Transfer DE 4	Measurement and Control Systems 2 DE/EN 4	Materials Engineering 2 DE/EN 4	Strength of Materials 2 DE 2	Finite Element Method DE/EN 4		Numerics DE 4	
Semester 3	Elective Module Communication 2		Project Module 3 DE 4	Virtual Product Development and Machine Elements 3 DE 4	Thermodynamics DE/EN 4	Measurement and Control Systems 1 DE/EN 2	Materials Engineering 1 DE 4	Strength of Materials 1 DE 2		Analysis 3 DE 4		Physics 3: Kinematics and Kinetics DE 4
Semester 2	Communication Compet. Basic 2		Project Module 2 DE 4	Machine Elements 2 DE 2	Fluiddynamics DE 4			Statics DE 4	Computer Science Tools DE 2	Analysis 2 DE 4	Algebra and Statistics 2 DE 4	Physics 2 DE 4
Semester 1	Business Administration DE 2		Project Module 1 DE 4	Machine Elements 1 DE 2			Materials and Chemistry DE 4	CAD for MT DE 2	Computer Science Programming 1 DE 4	Analysis 1 DE 4	Algebra and Statistics 1 DE 4	Physics 1 DE 4
	Context Modules		Project Modules	Subject-Specific Modules						Mathematics and Natural Science Modules		

Module Name

Language of Instruction

Credits

School of Engineering

Overview of Mechanical Engineering specialisations and elective modules

During your fourth year of study, you will choose two of the following eight specialisations:

	Semester 6	Semester 5
Biomechanical Engineering	Biomechanical Engineering 2 DE	Biomechanical Engineering 1 DE
Computational Fluid Engineering	Computational Fluid Engineering 2 DE	Computational Fluid Engineering 1 DE
Computational Light Weight Design	Computational Light Weight Design 2 DE	Computational Light Weight Design 1 DE
Innovative Materials and Surfaces	Innovative Materials and Surfaces 2 DE	Innovative Materials and Surfaces 1 DE
Smart Products and Production	Smart Products and Production 2 DE/EN	Smart Products and Production 1 DE/EN
Systems and Automation Technology	Systems and Automation Technology 2 EN	Systems and Automation Technology 1 EN
Thermal Energy Technology	Wind and Water Power and Thermal Solar Energy DE	Refrigeration and Heat Pumps DE
Process Engineering	Process Engineering 2 DE	Process Engineering 1 DE

During your fourth year of study, you will also choose two of the following elective modules:

Semester6	Advanced Digital Engineering DE	Advanced Digital Production DE	Sensors DE	Robotics and Mechatronics 2 DE	Biomedical Engineering 2 DE	Introduction to Rotary Wing Aircraft EN	Materials Selection DE	
Semester 5	Additive Manufacturing (3D printing) EN	Industrial Design: Basic Principles EN	Modelling and Simulation DE	Robotics and Mechatronics 1 DE	Biomedical Engineering 1 DE	Numerical and Experimental Aerodynamics EN	Rail Vehicle Technology DE	Conventional Power Plant Technology DE