

# Course of Study Mechanical Engineering (Study Cohort w23)

Sample course plan B Bachelor Mechanical Engineering (MBBS) Dual study program

Legend	Core Qualification Compulsory	Specialisation Compulsory	Focus Compulsory	Thesis Compulsory
	Core Qualification Elective Compulsory	Specialisation Elective Compulsory	Focus Elective Compulsory	Interdisciplinary complement

Specialisation Mechatronics							
1	<b>Mathematics I</b>		<b>Fundamentals of Mechanical Engineering Design</b>	<b>Advanced Mechanical Engineering Design (part 1)</b>	<b>Advanced Mechanical Engineering Design (part 2)</b>	<b>Advanced Mechanical Design Project</b>	<b>Foundations of Management</b>
2	Mathematics I VL 4	Fundamentals of Mechanical Engineering Design VL 2	Fundamentals of Mechanical Engineering Design VL 2	Advanced Mechanical Engineering Design I VL 2	Advanced Mechanical Engineering Design II VL 2	Advanced Mechanical Design Project PBL 4	Introduction to Management VL 3
3	Mathematics I HÜ 2	Fundamentals of Mechanical Engineering Design HÜ 2	Fundamentals of Mechanical Engineering Design HÜ 2	Advanced Mechanical Engineering Design I HÜ 2	Advanced Mechanical Engineering Design II HÜ 2		Management Tutorial GÜ 2
4	Mathematics I GÜ 2						
5				<b>Mechanical Engineering: Design (part 1)</b>	<b>Mechanical Engineering: Design (part 2)</b>		
6				Embodiment Design and 3D-CAD Introduction and Practical Training VL 2	Team Project Design Methodology PBL 2		
7				Mechanical Design Project I PBL 3	Mechanical Design Project II PBL 3		
8			<b>Technical Thermodynamics I</b>	<b>Basics of Electrical Engineering</b>	<b>Fluid Dynamics</b>	<b>Introduction to Control Systems</b>	<b>Semiconductor Circuit Design</b>
9	<b>Fundamentals of Materials Science</b>	Technical Thermodynamics I VL 2	Technical Thermodynamics I HÜ 1	Basics of Electrical Engineering VL 3	Fluid Dynamics VL 3	Introduction to Control Systems VL 2	Semiconductor Circuit Design VL 3
10	Fundamentals of Materials Science II VL 2	Technical Thermodynamics I HÜ 1	Technical Thermodynamics I GÜ 1	Basics of Electrical Engineering GÜ 2	Fluid Dynamics HÜ 2	Introduction to Control Systems GÜ 2	Semiconductor Circuit Design GÜ 1
11	Fundamentals of Materials Science I VL 2						
12	Physical and Chemical Basics of Materials Science VL 2						
13			<b>Production Engineering</b>	<b>Technical Thermodynamics II</b>	<b>Practical module 4 (dual study program, Bachelor's degree)</b>	<b>Measurement Technology for Mechanical Engineers</b>	<b>Modeling, Simulation and Optimization (EN)</b>
14			Production Engineering I VL 2	Technical Thermodynamics II VL 2	Practical term 4 0	Measurement Technology for Mechanical Engineering VL 2	Modeling, Simulation and Optimization IV 4
15	<b>Team Project MB</b>		Production Engineering II VL 2	Technical Thermodynamics II HÜ 1		Measurement Technology for Mechanical Engineering PR 2	
16	Team Project MB PBL 6		Production Engineering II HÜ 1	Technical Thermodynamics II GÜ 1		Measurement Technology for Mechanical Engineering PR 2	
17			Production Engineering I HÜ 1			Practical Course: Measurement and Control Systems PR 2	
18							
19			<b>Mathematics II</b>	<b>Mathematics III</b>	<b>Computational Mechanics</b>	<b>Practical module 5 (dual study program, Bachelor's degree)</b>	<b>Bachelor thesis (dual study program)</b>
20			Mathematics II VL 4	Analysis III VL 2	Computational Multibody Dynamics IV 2	Practical term 5 0	
21	<b>Computer Science for Engineers - Introduction and Overview</b>		Mathematics II HÜ 2	Analysis III GÜ 1	Computational Mechanics GÜ 2		
22	Computer Science for Engineers - Introduction and Overview VL 3		Mathematics II GÜ 2	Analysis III HÜ 1	Computational Structural Mechanics IV 2		
23	Computer Science for Engineers - Introduction and Overview GÜ 2			Differential Equations 1 VL 2			
24	Computer Science for Engineers - Introduction and Overview GÜ 2			Differential Equations 1 GÜ 1			
25				Differential Equations 1 HÜ 1			
26					<b>Mathematics IV</b>		
27	<b>Practical module 1 (dual study program, Bachelor's degree)</b>		<b>Practical module 2 (dual study program, Bachelor's degree)</b>	<b>Practical module 3 (dual study program, Bachelor's degree)</b>	Complex Functions VL 2		
28	Practical term 1 0		Practical term 2 0	Practical term 3 0	Complex Functions GÜ 1		
29					Complex Functions HÜ 1		
30					Differential Equations 2 VL 2		
31					Differential Equations 2 GÜ 1		
32					Differential Equations 2 HÜ 1		
33	<b>Engineering Mechanics I (Stereostatics)</b>		<b>Engineering Mechanics II (Elastostatics)</b>	<b>Engineering Mechanics III (Dynamics)</b>	<b>Fundamentals of Production and Quality Management</b>		
34	Engineering Mechanics I VL 2		Engineering Mechanics II VL 2	Engineering Mechanics III VL 3	Production Process Organization VL 2		
35	Engineering Mechanics I GÜ 2		Engineering Mechanics II GÜ 2	Engineering Mechanics III GÜ 2	Quality Management VL 2		
36	Engineering Mechanics I HÜ 1		Engineering Mechanics II HÜ 2	Engineering Mechanics III HÜ 1			
37							
38							

Linking theory and practice (dual study program, Bachelor's degree) (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.

