

Course of Study Mechanical Engineering (Study Cohort w23)

Sample course plan A 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 Biomechanics							
1	Mathematics I		Fundamentals of Mechanical Engineering Design	Advanced Mechanical Engineering Design (part 1)	Advanced Mechanical Engineering Design (part 2)	Advanced Mechanical Design Project	Foundations of Management
2	Mathematics I VL 4		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	Advanced Mechanical Engineering Design I HÜ 2	Advanced Mechanical Engineering Design II HÜ 2		Management Tutorial GÜ 2
4	Mathematics I GÜ 2						
5				Mechanical Engineering: Design (part 1)	Mechanical Engineering: Design (part 2)		
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			Technical Thermodynamics I	Basics of Electrical Engineering	Fluid Dynamics	Introduction to Control Systems	MED II: Introduction to Physiology
9	Fundamentals of Materials Science		Technical Thermodynamics I VL 2	Basics of Electrical Engineering VL 3	Fluid Dynamics VL 3	Introduction to Control Systems VL 2	Introduction to Physiology VL 2
10	Fundamentals of Materials Science II VL 2		Technical Thermodynamics I HÜ 1	Basics of Electrical Engineering GÜ 2	Fluid Dynamics HÜ 2	Introduction to Control Systems GÜ 2	
11	Fundamentals of Materials Science I VL 2		Technical Thermodynamics I GÜ 1				BIO I: Experimental Methods in Biomechanics
12	Physical and Chemical Basics of Materials Science VL 2						Experimental Methods in Biomechanics VL 2
13			Production Engineering	Technical Thermodynamics II	Practical module 4 (dual study program, Bachelor's degree)	Measurement Technology for Mechanical Engineers	Bachelor thesis (dual study program)
14			Production Engineering I VL 2	Technical Thermodynamics II VL 2	Practical term 4 0	Measurement Technology for Mechanical Engineering VL 2	
15	Team Project MB		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			Mathematics II	Mathematics III	Computational Mechanics	Practical module 5 (dual study program, Bachelor's degree)	
20			Mathematics II VL 4	Analysis III VL 2	Computational Multibody Dynamics IV 2	Practical term 5 0	
21	Computer Science for Engineers - Introduction and Overview		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					MED I: Introduction to Anatomy	MED II: Introduction to Biochemistry and Molecular Biology	
27	Practical module 1 (dual study program, Bachelor's degree)		Practical module 2 (dual study program, Bachelor's degree)	Practical module 3 (dual study program, Bachelor's degree)	Introduction to Anatomy VL 2	Introduction to Biochemistry and Molecular Biology VL 2	
28	Practical term 1 0		Practical term 2 0	Practical term 3 0			
29					MED I: Introduction to Radiology and Radiation Therapy	BIO I: Implants and Fracture Healing	
30					Introduction to Radiology and Radiation Therapy VL 2	Implants and Fracture Healing VL 2	
31							
32					Electrical Machines and Actuators		
33	Engineering Mechanics I (Stereostatics)		Engineering Mechanics II (Elastostatics)	Engineering Mechanics III (Dynamics)	Electrical Machines and Actuators VL 3		
34	Engineering Mechanics I VL 2		Engineering Mechanics II VL 2	Engineering Mechanics III VL 3	Electrical Machines and Actuators HÜ 2		
35	Engineering Mechanics I GÜ 2		Engineering Mechanics II GÜ 2	Engineering Mechanics III GÜ 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) - 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.

