

Course of Study Mechanical Engineering (Study Cohort w23)

Sample course plan A Bachelor Mechanical Engineering (MBBS)

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

Specialisation Theoretical Mechanical Engineering

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	Modeling, Simulation and Optimization (EN)
9	Fundamentals of Materials Science		Technical Thermodynamics I VL 2	Basics of Electrical Engineering VL 3	Fluid Mechanics VL 3	Introduction to Control Systems VL 2	Modeling, Simulation and Optimization IV 4
10	Fundamentals of Materials Science II VL 2		Technical Thermodynamics I HÜ 1	Basics of Electrical Engineering GÜ 2	Fluid Mechanics HÜ 2	Introduction to Control Systems GÜ 2	
11	Fundamentals of Materials Science I VL 2		Technical Thermodynamics I GÜ 1				
12	Physical and Chemical Basics of Materials Science VL 2						
13			Production Engineering	Technical Thermodynamics II	Computational Mechanics	Measurement Technology for Mechanical Engineers	Bachelor Thesis
14			Production Engineering I VL 2	Technical Thermodynamics II VL 2	Computational Multibody Dynamics IV 2	Measurement Technology for Mechanical Engineering VL 2	
15	Team Project MB		Production Engineering II VL 2	Technical Thermodynamics II HÜ 1	Computational Mechanics GÜ 2	Measurement Technology for Mechanical Engineering PR 2	
16	Team Project MB PBL 6		Production Engineering II HÜ 1	Technical Thermodynamics II GÜ 1	Computational Structural Mechanics IV 2	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	Electrical Machines and Actuators	Numerical Mathematics I	
20			Mathematics II VL 4	Analysis III VL 2	Electrical Machines and Actuators VL 3	Numerical Mathematics I VL 2	
21	Computer Science for Engineers - Introduction and Overview		Mathematics II HÜ 2	Analysis III GÜ 1	Electrical Machines and Actuators HÜ 2	Numerical Mathematics I GÜ 2	
22	Computer Science for Engineers - Introduction and Overview VL 3		Mathematics II GÜ 2	Analysis III HÜ 1			
23				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						Heat Transfer	
27	Engineering Mechanics I (Stereostatics)		Engineering Mechanics II (Elastostatics)	Engineering Mechanics III (Dynamics)		Heat Transfer VL 3	
28	Engineering Mechanics I VL 2		Engineering Mechanics II VL 2	Engineering Mechanics III VL 3		Heat Transfer HÜ 2	
29	Engineering Mechanics I GÜ 2		Engineering Mechanics II GÜ 2	Engineering Mechanics III GÜ 2			
30	Engineering Mechanics I HÜ 1		Engineering Mechanics II HÜ 2	Engineering Mechanics III HÜ 1			
31							
32							

Non-technical Courses for Bachelors (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.

