

Course of Study Mechanical Engineering (Study Cohort w23)

Sample course plan A Bachelor Mechanical Engineering (MBBS)

Specialisation Theoretical Mechanical Engineering

Core Qualification Compulsory		Specialisation Compulsory		Focus Compulsory		Thesis Compulsory	
Core Qualification Elective Compulsory		Specialisation Elective Compulsory		Focus Elective Compulsory		Interdisciplinary complement	
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		Mechanical Engineering: Design (part 1)	Mechanical Engineering: Design (part 2)			
5			Embodiment Design and 3D-CAD Introduction VL 2	Team Project Design Methodology PBL 2			
6			and Practical Training	Mechanical Design Project II PBL 3			
7			Mechanical Design Project I 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 VL 2		
15	Team Project MB	Production Engineering II VL 2	Technical Thermodynamics II HÜ 1	Computational Mechanics GÜ 2	Engineering		
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 PR 2		
17		Production Engineering I HÜ 1			Engineering		
18					Practical Course: Measurement and Control PR 2		
19					Systems		
20		Mathematics II	Mathematics III	Electrical Machines and Actuators	Numerical Mathematics I		
21	Computer Science for Engineers - Introduction and Overview	Mathematics II VL 4	Analysis III VL 2	Electrical Machines and Actuators VL 3	Numerical Mathematics I VL 2		
22	Computer Science for Engineers - Introduction VL 3	Mathematics II HÜ 2	Analysis III GÜ 1	Electrical Machines and Actuators HÜ 2	Numerical Mathematics I GÜ 2		
23	and Overview	Mathematics II GÜ 2	Analysis III HÜ 1				
24	Computer Science for Engineers - Introduction GÜ 2		Differential Equations 1 VL 2				
25	and Overview		Differential Equations 1 GÜ 1				
26			Differential Equations 1 HÜ 1				
27	Engineering Mechanics I (Stereostatics)	Engineering Mechanics II (Elastostatics)	Engineering Mechanics III (Dynamics)		Heat Transfer		
28	Engineering Mechanics I VL 2	Engineering Mechanics II VL 2	Engineering Mechanics III VL 3		Heat Transfer VL 3		
29	Engineering Mechanics I GÜ 2	Engineering Mechanics II GÜ 2	Engineering Mechanics III GÜ 2		Heat Transfer HÜ 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.

