

# Course of Study Mechanical Engineering (Study Cohort w23)

Sample course plan B Bachelor Mechanical Engineering (MBBS)

Specialisation Theoretical Mechanical Engineering

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

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	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				<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>Modeling, Simulation and Optimization (EN)</b>
9	<b>Fundamentals of Materials Science</b>		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			<b>Production Engineering</b>	<b>Technical Thermodynamics II</b>	<b>Computational Mechanics</b>	<b>Measurement Technology for Mechanical Engineers</b>	<b>Bachelor Thesis</b>
14			Production Engineering I VL 2	Technical Thermodynamics II VL 2	Computational Multibody Dynamics IV 2	Measurement Technology for Mechanical Engineering VL 2	
15	<b>Team Project MB</b>		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			<b>Mathematics II</b>	<b>Mathematics III</b>	<b>Fundamentals of Production and Quality Management</b>	<b>Numerical Mathematics I</b>	
20			Mathematics II VL 4	Analysis III VL 2	Production Process Organization VL 2	Numerical Mathematics I VL 2	
21	<b>Computer Science for Engineers - Introduction and Overview</b>		Mathematics II HÜ 2	Analysis III GÜ 1	Quality Management VL 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						<b>Heat Transfer</b>	
27	<b>Engineering Mechanics I (Stereostatics)</b>		<b>Engineering Mechanics II (Elastostatics)</b>	<b>Engineering Mechanics III (Dynamics)</b>		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.

