

# Course of Study Mechanical Engineering (Study Cohort w20)

Sample course plan A 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>Production Engineering (part 1)</b>	<b>Production Engineering (part 2)</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	Production Engineering I VL 2	Production Engineering II 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	Production Engineering I HÜ 1	Production Engineering II HÜ 1	Advanced Mechanical Engineering Design I HÜ 2	Advanced Mechanical Engineering Design II HÜ 2		Management Tutorial GÜ 2
4	<b>Computer Science for Mechanical Engineers</b>	<b>Fundamentals of Materials Science (part 2)</b>	<b>Mechanical Engineering: Design (part 1)</b>	<b>Mechanical Engineering: Design (part 2)</b>		
5	Computer Science for Mechanical Engineers VL 3	Fundamentals of Materials Science II VL 2	Embodiment Design and 3D-CAD VL 2	Team Project Design Methodology PBL 2		
6	Computer Science for Mechanical Engineers GÜ 2		Mechanical Design Project I PBL 3	Mechanical Design Project II PBL 3		
7		<b>Fundamentals of Mechanical Engineering Design</b>				
8		Fundamentals of Mechanical Engineering Design VL 2				
9		Fundamentals of Mechanical Engineering Design HÜ 2				
10	<b>Mathematics 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>
11	Linear Algebra 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
12	Linear Algebra I GÜ 1		Basics of Electrical Engineering GÜ 2	Fluid Mechanics HÜ 2	Introduction to Control Systems GÜ 2	
13	Linear Algebra I HÜ 1					
14	Analysis I VL 2	<b>Technical Thermodynamics I</b> VL 2				
15	Analysis I GÜ 1	Technical Thermodynamics I HÜ 1	<b>Technical Thermodynamics II</b>	<b>Mechanics IV (Oscillations, Analytical Mechanics, Multibody Systems, Numerical Mechanics)</b>	<b>Measurement Technology for Mechanical Engineers</b>	<b>Bachelor Thesis</b>
16	Analysis I HÜ 1	Technical Thermodynamics I GÜ 1	Technical Thermodynamics II VL 2	Mechanics IV VL 3	Measurement Technology for Mechanical Engineering VL 2	
17			Technical Thermodynamics II HÜ 1	Mechanics IV GÜ 2	Measurement Technology for Mechanical Engineering HÜ 1	
18	<b>Mechanics I (Statics)</b>	<b>Mechanics II: Mechanics of Materials</b>	Technical Thermodynamics II GÜ 1	Mechanics IV HÜ 1	Practical Course: Measurement and Control Systems PR 2	
19	Mechanics I VL 2	Mechanics II VL 2				
20	Mechanics I GÜ 2	Mechanics II GÜ 2	<b>Mathematics III</b>	<b>Electrical Machines and Actuators</b>	<b>Numerical Mathematics I</b>	
21	Mechanics I HÜ 1	Mechanics II HÜ 2	Analysis III VL 2	Electrical Machines and Actuators VL 3	Numerical Mathematics I VL 2	
22			Analysis III GÜ 1	Electrical Machines and Actuators HÜ 2	Numerical Mathematics I GÜ 2	
23			Analysis III HÜ 1			
24	<b>Fundamentals of Materials Science (part 1)</b>	<b>Mathematics II</b>	Differential Equations 1 VL 2			
25	Fundamentals of Materials Science I VL 2	Linear Algebra II VL 2	Differential Equations 1 GÜ 1			
26	Physical and Chemical Basics of Materials Science VL 2	Linear Algebra II GÜ 1	Differential Equations 1 HÜ 1		<b>Heat Transfer</b>	
27		Linear Algebra II HÜ 1			Heat Transfer VL 3	
28	<b>Team Project MB</b>	Analysis II VL 2	<b>Mechanics III (Dynamics)</b>		Heat Transfer HÜ 2	
29	Team Project MB PBL 6	Analysis II HÜ 1	Mechanics III VL 3			
30		Analysis II GÜ 1	Mechanics III GÜ 2			
31			Mechanics III HÜ 1			
32						
33						

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.

