

Course of Study Mechanical Engineering (Study Cohort w19)

Sample course plan B Bachelor Mechanical Engineering (MBBS)
Specialisation Product Development and Production

Legend:

Core qualification Compulsory	Specialisation Compulsory	Focus Compulsory	Thesis Compulsory
Core qualification Elective Compulsory	Specialisation Elective Compulsory	Focus Elective Compulsory	Interdisciplinary complement

LP	Semester 1	FormHrs/wk	Semester 2	FormHrs/wk	Semester 3	FormHrs/wk	Semester 4	FormHrs/wk	Semester 5	FormHrs/wk	Semester 6	FormHrs/wk
1	Production Engineering (part 1)		Production Engineering (part 2)		Advanced Mechanical Engineering Design (part 1)		Advanced Mechanical Engineering Design (part 2)		Advanced Mechanical Design Project		Foundations of Management	
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	Advanced Mechanical Design Project		Management Tutorial	HÜ 2
4	Computer Science for Mechanical Engineers		Fundamentals of Materials Science (part 2)		Mechanical Engineering: Design (part 1)		Mechanical Engineering: Design (part 2)					
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	UE 2	Fundamentals of Mechanical Engineering Design		Mechanical Design Project I	PBL 3	Mechanical Design Project II	PBL 3				
7												
8						Basics of Electrical Engineering		Fluid Dynamics		Introduction to Control Systems		Integrated Product Development and Lightweight Design
9			Fundamentals of Mechanical Engineering Design	VL 2	Basics of Electrical Engineering	VL 3	Fluid Mechanics	VL 3	Introduction to Control Systems	VL 2	Integrated Product Development I	VL 2
10	Mathematics I		Fundamentals of Mechanical Engineering Design	HÜ 2	Basics of Electrical Engineering	UE 2	Fluid Mechanics	HÜ 2	Introduction to Control Systems	UE 2	Development of Lightweight Design Products	VL 2
11	Linear Algebra I	VL 2	Technical Thermodynamics I								CAE-Team Project	PBL 2
12	Linear Algebra I	UE 1										
13	Linear Algebra I	HÜ 1		Technical Thermodynamics I	VL 2							
14	Analysis I	VL 2	Technical Thermodynamics I	HÜ 1	Technical Thermodynamics II		Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)		Measurement Technology for Mechanical and Process Engineers		Bachelor Thesis	
15	Analysis I	UE 1	Technical Thermodynamics I	UE 1	Technical Thermodynamics II	VL 2	Mechanics IV	VL 3	Measurement Technology for Mechanical and Process Engineers	VL 2		
16	Analysis I	HÜ 1			Technical Thermodynamics II	HÜ 1	Mechanics IV	UE 2	Measurement Technology for Mechanical and Process Engineers			
17					Technical Thermodynamics II	UE 1	Mechanics IV	HÜ 1	Measurement Technology for Mechanical and Process Engineers	HÜ 1		
18	Mechanics I (Statics)		Mechanics II: Mechanics of Materials						Measurement Technology for Mechanical and Process Engineers			
	Mechanics I	VL 2	Mechanics II	VL 2					Practical Course: Measurement and Control Systems	PR 2		
	Mechanics I	UE 2	Mechanics II	UE 2								
	Mechanics I	HÜ 1	Mechanics II	HÜ 2								
19					Mathematics III		Fundamentals of Production and Quality Management		Production Technology			
20					Analysis III	VL 2	Production Process Organization	VL 2	Forming and Cutting Technology	VL 2		
21					Analysis III	UE 1	Quality Management	VL 2	Forming and Cutting Technology	HÜ 1		
22					Analysis III	HÜ 1			Forming and Cutting Technology			
23					Differential Equations 1	VL 2			Fundamentals of Machine Tools	VL 2		
24	Fundamentals of Materials Science (part 1)		Mathematics II		Differential Equations 1	UE 1			Fundamentals of Machine Tools	HÜ 1		
	Fundamentals of Materials Science I	VL 2	Linear Algebra II	VL 2	Differential Equations 1	HÜ 1						
			Linear Algebra II	UE 1								
			Linear Algebra II	HÜ 1								
25	Physical and Chemical	VL 2	Analysis II	VL 2					Material Science Laboratory			

26	Basics of Materials Science	Analysis II	HÜ 1	
27		Analysis II	UE 1	
28	Team Project MB			Mechanics III (Hydrostatics, Kinematics, Kinetics I)
29	Team Project MB	PBL 6		Mechanics III VL 3
30				Mechanics III UE 2
31				Mechanics III HÜ 1
32				
33				

Companion Lecture for	VL 2
Materials Science Laboratory	
Material Science Laboratory	PR 4

Nontechnical Complementary 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.