

# Course of Study Mechanical Engineering (Study Cohort w19)

Sample course plan C 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	<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	Advanced Mechanical Design Project		Management Tutorial	HÜ 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	UE 2	<b>Fundamentals of Mechanical Engineering Design</b>	Fundamentals of Mechanical Engineering Design	Mechanical Design Project I	PBL 3	Mechanical Design Project II	PBL 3													
7																					
8							<b>Basics of Electrical Engineering</b>		<b>Fluid Dynamics</b>		<b>Introduction to Control Systems</b>		<b>Integrated Product Development and Lightweight Design</b>								
9					Basics of Electrical Engineering	VL 3	Fluid Mechanics	VL 3	Introduction to Control Systems	VL 2	Integrated Product Development I	VL 2									
10	<b>Mathematics I</b>				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	<b>Technical Thermodynamics I</b>	Technical Thermodynamics I	Technical Thermodynamics II	Technical Thermodynamics II	Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)	Mechanics IV	Measurement Technology for Mechanical and Process Engineers	Measurement Technology for Mechanical and Process Engineers	Bachelor Thesis										
12	Linear Algebra I	UE 1																			
13	Linear Algebra I	HÜ 1																			
14	Analysis I	VL 2	Technical Thermodynamics I	HÜ 1	Technical Thermodynamics II	VL 2	Mechanics IV	VL 3	Measurement Technology for Mechanical and Process Engineers	VL 2											
15	Analysis I	UE 1	Technical Thermodynamics I	UE 1	Technical Thermodynamics II	HÜ 1	Mechanics IV	UE 2	Measurement Technology for Mechanical and Process Engineers												
16	Analysis I	HÜ 1			Technical Thermodynamics II	UE 1	Mechanics IV	HÜ 1	Measurement Technology for Mechanical and Process Engineers	HÜ 1											
17			<b>Mechanics II: Mechanics of Materials</b>	Mechanics II	Mathematics III	Mathematics III	Advanced Materials	Advanced Materials	Production Technology	Production Technology											
18	<b>Mechanics I (Statics)</b>																				
	Mechanics I	VL 2																			
	Mechanics I	UE 2	Mechanics II	VL 2	Analysis III	VL 2	Advanced Materials	VL 2	Forming and Cutting Technology	VL 2											
	Mechanics I	HÜ 1	Mechanics II	UE 2	Analysis III	UE 1	Characterization		Forming and Cutting Technology	HÜ 1											
			Mechanics II	HÜ 2	Analysis III	HÜ 1	Advanced Materials Design	VL 2	Forming and Cutting Technology												
					Differential Equations 1	VL 2	Advanced Materials Design	HÜ 2	Forming and Cutting Technology												
19			<b>Mathematics II</b>	Linear Algebra II	Mathematics III	Mathematics III	Advanced Materials	Advanced Materials	Production Technology	Production Technology											
20																					
21																					
22					Differential Equations 1	UE 1			Fundamentals of Machine Tools	VL 2											
23					Differential Equations 1	HÜ 1			Fundamentals of Machine Tools	HÜ 1											
24	<b>Fundamentals of Materials Science (part 1)</b>		Linear Algebra II	VL 2	Differential Equations 1	HÜ 1															
	Fundamentals of Materials Science I	VL 2	Linear Algebra II	UE 1																	
			Linear Algebra II	HÜ 1																	
25	Physical and Chemical	VL 2	Analysis II	VL 2					<b>Material Science Laboratory</b>												

26	Basics of Materials Science	Analysis II	HÜ 1	
27		Analysis II	UE 1	
28	<b>Team Project MB</b>			<b>Mechanics III (Hydrostatics, Kinematics, Kinetics I)</b>
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.