Course of Study Mechanical Engineering (Study Cohort w19)

Sample course plan B Bachelor Mechanical Engineering (MBBS)
Specialisation Mechatronics

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	Form	Hrs/wk	Semester 2	Form	Hrs/wk	Semester 3	Form	Hrs/wk	Semester 4	Form	Hrs/wk	Semester 5	Form	Hrs/wk	Semester 6	Form	Hrs/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				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				Fundamentals of Mechanical Engineering Design	VL	2	**Basics of Electrical Engineering**			**Fluid Dynamics**			**Introduction to Control Systems**			**Semiconductor Circuit Design**		
8				Fundamentals of Mechanical Engineering Design	HÜ	2	Basics of Electrical Engineering	VL	3	Fluid Mechanics	VL	3	Introduction to Control Systems	VL	2	Semiconductor Circuit Design	VL	3
9							Basics of Electrical Engineering	UE	2	Fluid Mechanics	HÜ	2	Introduction to Control Systems	UE	2	Semiconductor Circuit Design	UE	1
10	**Mathematics I**			**Technical Thermodynamics I**												**Bachelor Thesis**		
11	Linear Algebra I	VL	2	Technical Thermodynamics I	VL	2	**Technical Thermodynamics II**			**Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)**			**Measurement Technology for Mechanical and Process Engineers**					
12	Linear Algebra I	UE	1	Technical Thermodynamics I	HÜ	1	Technical Thermodynamics II	VL	2	Mechanics IV	VL	3	Measurement Technology for Mechanical and Process Engineers	VL	2			
13	Linear Algebra I	HÜ	1	Technical Thermodynamics I	UE	1	Technical Thermodynamics II	HÜ	1	Mechanics IV	UE	2	Measurement Technology for Mechanical and Process Engineers	HÜ	1			
14	Analysis I	VL	2				Technical Thermodynamics II	UE	1	Mechanics IV	HÜ	1	Practical Course: Measurement and Control Systems	PR	2			
15	Analysis I	UE	1															
16	Analysis I	HÜ	1															
17																		
18	**Mechanics I (Statics)**			**Mechanics II: Mechanics of Materials**														
19	Mechanics I	VL	2	Mechanics II	VL	2	**Mathematics III**			**Mathematics IV**			**Simulation and Design of Mechatronic Systems**					
20	Mechanics I	UE	2	Mechanics II	UE	2	Analysis III	VL	2	Complex Functions	VL	2	Simulation and Design of Mechatronic Systems	VL	2			
21	Mechanics I	HÜ	1	Mechanics II	HÜ	2	Analysis III	UE	1	Complex Functions	UE	1	Simulation and Design of Mechatronic Systems	HÜ	1			
22							Analysis III	HÜ	1	Complex Functions	HÜ	1	Simulation and Design of Mechatronic Systems	PR	1			
23							Differential Equations 1	VL	2	Differential Equations 2	VL	2						
24	**Fundamentals of Materials Science (part 1)**			**Mathematics II**			Differential Equations 1	UE	1	Differential Equations 2	UE	1						
25	Fundamentals of Materials Science I	VL	2	Linear Algebra II	VL	2	Differential Equations 1	HÜ	1	Differential Equations 2	HÜ	1						
26	Physical and Chemical Basics of Materials Science	VL	2	Linear Algebra II	UE	1				**Fundamentals of Production and Quality Management**								
27				Linear Algebra II	HÜ	1												
28				Analysis II	VL	2	**Mechanics III (Hydrostatics,**			Production Process	VL	2						
				Analysis II	HÜ	1												

28				
29	**Team Project MB**		**Kinematics, Kinetics I)**	Organization
30	Team Project MB PBL 6	Analysis II UE 1	Mechanics III VL 3	Quality Management VL 2
31			Mechanics III UE 2	
32			Mechanics III HÜ 1	
33				

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.