Course of Study Mechanical Engineering (Study Cohort w15)

Sample course plan C 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

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	TT	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				Project Entrepreneurship	PBL	2
4	**Computer Science for Mechanical Engineers (part 1)**			**Computer Science for Mechanical Engineers (part 2)**			**Mechanical Engineering: Design (part 1)**			**Mechanical Engineering: Design (part 2)**								
5	Computer Science for Mechanical Engineers I	VL	2	Computer Science for Mechanical Engineers II	VL	2	Embodiment Design and 3D-CAD	VL	2	Team Project Design Methodology	PBL	2						
	Computer Science for Mechanical Engineers I	UE	2	Computer Science for Mechanical Engineers II	UE	2	Mechanical Design Project I	TT	3	Mechanical Design Project II	TT	3						
6	Computer Science for Mechanical Engineers I	HÜ	1	**Fundamentals of Materials Science (part 2)**														
7				Fundamentals of Materials Science II	VL	2	**Basics of Electrical Engineering**			**Fluid Dynamics**			**Introduction to Control Systems**			**Mathematics IV**		
8	**Mathematics I**			**Fundamentals of Mechanical Engineering Design**			Basics of Electrical Engineering	VL	3	Fluid Mechanics	VL	3	Introduction to Control Systems	VL	2	Complex Functions	VL	2
9	Linear Algebra I	VL	2	Fundamentals of Mechanical Engineering Design	VL	2	Basics of Electrical Engineering	UE	2	Fluid Mechanics	HÜ	2	Introduction to Control Systems	UE	2	Complex Functions	UE	1
10	Linear Algebra I	UE	1	Fundamentals of Mechanical Engineering Design	HÜ	2										Complex Functions	HÜ	1
11	Linear Algebra I	HÜ	1													Differential Equations 2	VL	2
12	Analysis I	VL	2	**Technical Thermodynamics I**												Differential Equations 2	UE	1
13	Analysis I	UE	1	Technical Thermodynamics I	VL	2	**Technical Thermodynamics II**			**Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)**			**Measurement Technology for Mechanical and Process Engineers**			Differential Equations 2	HÜ	1
14	Analysis I	HÜ	1	Technical Thermodynamics I	HÜ	1	Technical Thermodynamics II	VL	2	Mechanics IV	VL	3	Measurement Technology for Mechanical and Process Engineers	VL	2	**Bachelor Thesis**		
15				Technical Thermodynamics I	UE	1	Technical Thermodynamics II	HÜ	1	Mechanics IV	UE	2	Measurement Technology for Mechanical and Process Engineers	HÜ	1			
16	**Mechanics I (Statics)**						Technical Thermodynamics II	UE	1	Mechanics IV	HÜ	1	Practical Course: Measurement and Control Systems	PR	2			
17	Mechanics I	VL	2															
18	Mechanics I	UE	2				**Mathematics III**			**Advanced Materials**			**Heat Transfer**					
19	Mechanics I	HÜ	1				Analysis III	VL	2	Advanced Materials Characterization	VL	2	Heat Transfer	VL	3			
20							Analysis III	UE	1	Advanced Materials Design	VL	2	Heat Transfer	HÜ	2			
21				**Mechanics II: Mechanics of Materials**			Analysis III	HÜ	1	Advanced Materials Design	HÜ	2						
22	**Fundamentals of Materials Science (part 1)**			Mechanics II	VL	2	Differential Equations 1	VL	2				**Simulation and Design of**					
23	Fundamentals of Materials	VL	2	Mechanics II	UE	2	Differential Equations 1	UE	1									
24				Mechanics II	HÜ	2	Differential Equations 1	HÜ	1									
25	Science I																	

	Physical and Chemical Basics of Materials Science	VL	2				
26	**Team Project MB**			**Mathematics II**			
27	Team Project MB	TT	6	Linear Algebra II	VL	2	
28				Linear Algebra II	UE	1	
29				Linear Algebra II	HÜ	1	
30				Analysis II	VL	2	
31				Analysis II	HÜ	1	
32				Analysis II	UE	1	
33							

Mechanics III (Hydrostatics, Kinematics, Kinetics I)			
Mechanics III	VL	3	
Mechanics III	UE	2	
Mechanics III	HÜ	1	

Mechatronic Systems			
Simulation and Design of Mechatronic Systems	VL	2	
Simulation and Design of Mechatronic Systems	HÜ	1	
Simulation and Design of Mechatronic Systems	FL	1	

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.