Course of Study Mechanical Engineering (Study Cohort w19)

Sample course plan C Bachelor Mechanical Engineering (MBBS)
Specialisation Materials in Engineering Sciences

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**			**Structural Materials (part 2)**		
8				Fundamentals of Mechanical Engineering Design	HÜ	2	Basics of Electrical Engineering	VL	3	Fluid Mechanics	VL	3	Introduction to Control Systems	VL	2	Fundamentals of Mechanical Properties of Materials	VL	2
9							Basics of Electrical Engineering	UE	2	Fluid Mechanics	HÜ	2	Introduction to Control Systems	UE	2			
10	**Mathematics I**															**Enhanced Fundamentals of Materials Science**		
11	Linear Algebra I	VL	2													Enhanced Fundamentals: Metals	VL	2
12	Linear Algebra I	UE	1	**Technical Thermodynamics I**												Enhanced Fundamentals: Ceramics and Polymers	VL	2
13	Linear Algebra I	HÜ	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**			Enhanced Fundamentals: Ceramics and Polymers	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	**Bachelor Thesis**		
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	HÜ	1			
16	Analysis I	HÜ	1				Technical Thermodynamics II	UE	1	Mechanics IV	HÜ	1	Practical Course: Measurement and Control Systems	PR	2			
17																		
18	**Mechanics I (Statics)**			**Mechanics II: Mechanics of Materials**									**Structural Materials (part 1)**					
19	Mechanics I	VL	2	Mechanics II	VL	2	**Mathematics III**			**Advanced Materials**			Welding Technology	VL	3			
20	Mechanics I	UE	2	Mechanics II	UE	2	Analysis III	VL	2	Advanced Materials Characterization	VL	2						
21	Mechanics I	HÜ	1	Mechanics II	HÜ	2	Analysis III	UE	1	Advanced Materials Design	VL	2	**Material Science Laboratory**					
22							Analysis III	HÜ	1	Advanced Materials Design	HÜ	2	Companion Lecture for Materials Science Laboratory	VL	2			
23							Differential Equations 1	VL	2				Material Science Laboratory	PR	4			
24	**Fundamentals of Materials Science (part 1)**			**Mathematics II**			Differential Equations 1	UE	1									
25	Fundamentals of Materials Science I	VL	2	Linear Algebra II	VL	2	Differential Equations 1	HÜ	1									
26	Physical and Chemical	VL	2	Linear Algebra II	UE	1	**Mechanics III (Hydrostatics, Kinematics, Kinetics I)**											
27	Basics of Materials Science			Linear Algebra II	HÜ	1	Mechanics III	VL	3									
				Analysis II	VL	2												

28	**Team Project MB**	Analysis II HÜ 1	Mechanics III UE 2
29	Team Project MB PBL 6	Analysis II UE 1	Mechanics III HÜ 1
30			
31			
32			
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.