Course of Study Mechanical Engineering (Study Cohort w15)

Sample course plan B Bachelor Mechanical Engineering (MBBS)
Specialisation Energy Systems

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**			**Reciprocating Machinery (part 2)**		
8	**Mathematics I**			**Fundamentals of Mechanical Engineering Design**			Basics of Electrical Engineering	VL	3	Fluid Mechanics	VL	3	Introduction to Control Systems	VL	2	Internal Combustion Engines I	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	Internal Combustion Engines I	HÜ	1
10	Linear Algebra I	UE	1	Fundamentals of Mechanical Engineering Design	HÜ	2										**Bachelor Thesis**		
11	Linear Algebra I	HÜ	1	**Technical Thermodynamics I**														
12	Analysis 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**					
13	Analysis 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			
14	Analysis 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			
15							Technical Thermodynamics II	UE	1	Mechanics IV	HÜ	1	Practical Course: Measurement and Control Systems	PR	2			
16	**Mechanics I (Statics)**																	
17	Mechanics I	VL	2				**Mathematics III**			**Fundamentals of Production and Quality Management**			**Gas and Steam Power Plants**					
18	Mechanics I	UE	2				Analysis III	VL	2	Production Process Organization	VL	2	Gas and Steam Power Plants	VL	3			
	Mechanics I	HÜ	1				Analysis III	UE	1	Quality Management	VL	2	Gas and Steam Power Plants	HÜ	2			
19							Analysis III	HÜ	1									
20				**Mechanics II: Mechanics of Materials**			Differential Equations 1	VL	2				**Heat Transfer**					
21				Mechanics II	VL	2	Differential Equations 1	UE	1									
22	**Fundamentals of Materials Science (part 1)**			Mechanics II	UE	2	Differential Equations 1	HÜ	1									
23	Fundamentals of Materials Science I	VL	2	Mechanics II	HÜ	2												
24																		
25																		

	Physical and Chemical Basics of Materials Science VL 2			Heat Transfer VL 3 Heat Transfer HÜ 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	**Mechanics III (Hydrostatics, Kinematics, Kinetics I)**	
31		Analysis II HÜ 1	Mechanics III VL 3	
32		Analysis II UE 1	Mechanics III UE 2 Mechanics III HÜ 1	**Reciprocating Machinery (part 1)** Fundamentals of Reciprocating Engines and Turbomachinery - Part Reciprocating Engines VL 1 Fundamentals of Reciprocating Engines and Turbomachinery - Part Reciprocating Engines HÜ 1
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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.