Course of Study Mechanical Engineering (Study Cohort w17)

Sample course plan A 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	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	2	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	GÜ	2	**Fundamentals of Mechanical Engineering Design**			Mechanical Design Project I	PBL	3	Mechanical Design Project II	PBL	3						
7	Computer Science for Mechanical Engineers	HÜ	1	Fundamentals of Mechanical Engineering Design	VL	2	**Basics of Electrical Engineering**			**Fluid Dynamics**			**Introduction to Control Systems**			**Reciprocating Machinery (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	Internal Combustion Engines I	VL	2
9							Basics of Electrical Engineering	GÜ	2	Fluid Mechanics	HÜ	2	Introduction to Control Systems	GÜ	2	Internal Combustion Engines I	HÜ	1
10	**Mathematics I**			**Technical Thermodynamics I**												**Bachelor Thesis**		
11	Linear Algebra I	VL	2	Technical Thermodynamics I	VL	2												
12	Linear Algebra I	GÜ	1	Technical Thermodynamics I	HÜ	1												
13	Linear Algebra I	HÜ	1	Technical Thermodynamics I	GÜ	1	**Technical Thermodynamics II**			**Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)**			**Measurement Technology for Mechanical and Process Engineers**					
14	Analysis I	VL	2				Technical Thermodynamics II	VL	2	Mechanics IV	VL	3	Measurement Technology for Mechanical and Process Engineers	VL	2			
15	Analysis I	GÜ	1				Technical Thermodynamics II	HÜ	1	Mechanics IV	GÜ	2	Measurement Technology for Mechanical and Process Engineers	HÜ	1			
16	Analysis I	HÜ	1				Technical Thermodynamics II	GÜ	1	Mechanics IV	HÜ	1	Practical Course: Measurement and Control Systems	PR	2			
17																		
18	**Mechanics I (Statics)**			**Mechanics II: Mechanics of Materials**			**Mathematics III**			**Electrical Machines**			**Heat Transfer**					
19	Mechanics I	VL	2	Mechanics II	VL	2	Analysis III	VL	2	Electrical Machines	VL	3	Heat Transfer	VL	3			
20	Mechanics I	GÜ	2	Mechanics II	GÜ	2	Analysis III	GÜ	1	Electrical Machines	HÜ	2	Heat Transfer	HÜ	2			
21	Mechanics I	HÜ	1	Mechanics II	HÜ	2	Analysis III	HÜ	1									
22							Differential Equations 1	VL	2									
23							Differential Equations 1	GÜ	1									
24	**Fundamentals of Materials Science (part 1)**			**Mathematics II**			Differential Equations 1	HÜ	1				**Reciprocating Machinery (part 1)**					
25	Fundamentals of Materials Science I	VL	2	Linear Algebra II	VL	2							Fundamentals of Reciprocating Engines and Turbomachinery - Part Reciprocating Engines	VL	1			
26	Physical and Chemical Basics of Materials Science	VL	2	Linear Algebra II	GÜ	1							Fundamentals of Reciprocating Engines and Turbomachinery - Part Reciprocating Engines	HÜ	1			
27				Linear Algebra II	HÜ	1	**Mechanics III (Hydrostatics, Kinematics, Kinetics I)**						**Gas and Steam Power Plants**					
28	**Team Project MB**			Analysis II	VL	2	Mechanics III	VL	3				Gas and Steam Power Plants	VL	3			
29	Team Project MB	TT	6	Analysis II	HÜ	1	Mechanics III	GÜ	2				Gas and Steam Power Plants	HÜ	1			
30				Analysis II	GÜ	1	Mechanics III	HÜ	1									
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.