Course of Study Mechanical Engineering (Study Cohort w18)

Sample course plan A 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	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	GÜ	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	GÜ	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**			**Mathematics IV**		
8				Fundamentals of Mechanical Engineering Design	HÜ	2	Basics of Electrical Engineering	VL	3	Fluid Mechanics	VL	3	Introduction to Control Systems	VL	2	Complex Functions	VL	2
9							Basics of Electrical Engineering	GÜ	2	Fluid Mechanics	HÜ	2	Introduction to Control Systems	GÜ	2	Complex Functions	GÜ	1
10	**Mathematics I**			**Technical Thermodynamics I**												Complex Functions	HÜ	1
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 Engineers**			Differential Equations 2	VL	2
12	Linear Algebra I	GÜ	1	Technical Thermodynamics I	HÜ	1	Technical Thermodynamics II	VL	2	Mechanics IV	VL	3	Measurement Technology for Mechanical Engineering	VL	2	Differential Equations 2	GÜ	1
13	Linear Algebra I	HÜ	1	Technical Thermodynamics I	GÜ	1	Technical Thermodynamics II	HÜ	1	Mechanics IV	GÜ	2	Measurement Technology for Mechanical Engineering	HÜ	1	Differential Equations 2	HÜ	1
14	Analysis I	VL	2				Technical Thermodynamics II	GÜ	1	Mechanics IV	HÜ	1	Practical Course: Measurement and Control Systems	PR	2	**Bachelor Thesis**		
15	Analysis I	GÜ	1															
16	Analysis I	HÜ	1				**Mathematics III**			**Electrical Machines and Actuators**			**Simulation and Design of Mechatronic Systems**					
17							Analysis III	VL	2	Electrical Machines and Actuators	VL	3	Simulation and Design of Mechatronic Systems	VL	2			
18	**Mechanics I (Statics)**			**Mechanics II: Mechanics of Materials**			Analysis III	GÜ	1	Electrical Machines and Actuators	HÜ	2	Simulation and Design of Mechatronic Systems	HÜ	1			
19	Mechanics I	VL	2	Mechanics II	VL	2	Analysis III	HÜ	1				Simulation and Design of Mechatronic Systems	PR	1			
20	Mechanics I	GÜ	2	Mechanics II	GÜ	2	Differential Equations 1	VL	2									
21	Mechanics I	HÜ	1	Mechanics II	HÜ	2	Differential Equations 1	GÜ	1				**Heat Transfer**					
22							Differential Equations 1	HÜ	1				Heat Transfer	VL	3			
23													Heat Transfer	HÜ	2			
24	**Fundamentals of Materials Science (part 1)**			**Mathematics II**			**Mechanics III (Hydrostatics, Kinematics, Kinetics I)**											
25	Fundamentals of Materials Science I	VL	2	Linear Algebra II	VL	2	Mechanics III	VL	3									
26	Physical and Chemical Basics of Materials Science	VL	2	Linear Algebra II	GÜ	1	Mechanics III	GÜ	2									
27				Linear Algebra II	HÜ	1	Mechanics III	HÜ	1									
28	**Team Project MB**			Analysis II	VL	2												
29	Team Project MB	PBL	6	Analysis II	HÜ	1												
30				Analysis II	GÜ	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.