Course of Study Mechanical Engineering (Study Cohort w18)

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	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**			**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	GÜ	2	Fluid Mechanics	HÜ	2	Introduction to Control Systems	GÜ	2			
10	**Mathematics I**			**Technical Thermodynamics I**												**Enhanced Fundamentals of Materials Science**		
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**			Enhanced Fundamentals: Metals	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	Enhanced Fundamentals: Ceramics and Polymers	VL	2
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	Enhanced Fundamentals: Ceramics and Polymers	HÜ	1
14	Analysis I	VL	2				Technical Thermodynamics II	GÜ	1	Mechanics IV	HÜ	1	Practical Course: Measurement and Control Systems	PR	2			
15	Analysis I	GÜ	1													**Bachelor Thesis**		
16	Analysis I	HÜ	1															
17																		
18	**Mechanics I (Statics)**			**Mechanics II: Mechanics of Materials**			**Mathematics III**			**Advanced Materials**			**Structural Materials (part 1)**					
19	Mechanics I	VL	2	Mechanics II	VL	2	Analysis III	VL	2	Advanced Materials Characterization	VL	2	Welding Technology	VL	3			
20	Mechanics I	GÜ	2	Mechanics II	GÜ	2	Analysis III	GÜ	1	Advanced Materials Design	VL	2						
21	Mechanics I	HÜ	1	Mechanics II	HÜ	2	Analysis III	HÜ	1	Advanced Materials Design	HÜ	2	**Material Science Laboratory**					
22							Differential Equations 1	VL	2				Companion Lecture for Materials Science Laboratory	VL	2			
23							Differential Equations 1	GÜ	1				Material Science Laboratory	PR	4			
24	**Fundamentals of Materials Science (part 1)**			**Mathematics II**			Differential Equations 1	HÜ	1									
25	Fundamentals of Materials Science I	VL	2	Linear Algebra II	VL	2												
26	Physical and Chemical Basics of Materials Science	VL	2	Linear Algebra II	GÜ	1												
27				Linear Algebra II	HÜ	1												
28	**Team Project MB**			Analysis II	VL	2	**Mechanics III (Hydrostatics, Kinematics, Kinetics I)**											
29	Team Project MB	PBL	6	Analysis II	HÜ	1	Mechanics III	VL	3									
30				Analysis II	GÜ	1	Mechanics III	GÜ	2									
31							Mechanics III	HÜ	1									
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.