Course of Study Mechanical Engineering (Study Cohort w18)

Sample course plan B Bachelor Mechanical Engineering (MBBS)
Specialisation Product Development and Production

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**			**Integrated Product Development and Lightweight Design**		
8				Fundamentals of Mechanical Engineering Design	HÜ	2	Basics of Electrical Engineering	VL	3	Fluid Mechanics	VL	3	Introduction to Control Systems	VL	2	Integrated Product Development I	VL	2
9							Basics of Electrical Engineering	GÜ	2	Fluid Mechanics	HÜ	2	Introduction to Control Systems	GÜ	2	Development of Lightweight Design Products	VL	2
10	**Mathematics I**			**Technical Thermodynamics I**												CAE-Team Project	PBL	2
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**			**Bachelor Thesis**		
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			
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			
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															
16	Analysis I	HÜ	1				**Mathematics III**			**Fundamentals of Production and Quality Management**			**Production Technology**					
17							Analysis III	VL	2	Production Process Organization	VL	2	Forming and Cutting Technology	VL	2			
18	**Mechanics I (Statics)**			**Mechanics II: Mechanics of Materials**			Analysis III	GÜ	1	Quality Management	VL	2	Forming and Cutting Technology	HÜ	1			
19	Mechanics I	VL	2	Mechanics II	VL	2	Analysis III	HÜ	1				Fundamentals of Machine Tools	VL	2			
20	Mechanics I	GÜ	2	Mechanics II	GÜ	2	Differential Equations 1	VL	2				Fundamentals of Machine Tools	HÜ	1			
21	Mechanics I	HÜ	1	Mechanics II	HÜ	2	Differential Equations 1	GÜ	1									
22							Differential Equations 1	HÜ	1				**Material Science Laboratory**					
23													Companion Lecture for Materials Science Laboratory	VL	2			
24	**Fundamentals of Materials Science (part 1)**			**Mathematics II**									Material Science Laboratory	PR	4			
25	Fundamentals of Materials Science I	VL	2	Linear Algebra II	VL	2	**Mechanics III (Hydrostatics, Kinematics, Kinetics I)**											
26	Physical and Chemical Basics of Materials Science	VL	2	Linear Algebra II	GÜ	1	Mechanics III	VL	3									
27				Linear Algebra II	HÜ	1	Mechanics III	GÜ	2									
28	**Team Project MB**			Analysis II	VL	2	Mechanics III	HÜ	1									
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.