Course of Study Mechanical Engineering (Study Cohort w23)

Sample course plan C Bachelor Mechanical Engineering (MBBS)

Specialisation Aircraft Systems Engineering

Legend

Core Qualification Compulsory	Specialisation Compulsory	Focus Compulsory	Thesis Compulsory
Core Qualification Elective Compulsory	Specialisation Elective Compulsory	Focus Elective Compulsory	Interdisciplinary complement

LP					
1	**Mathematics I**	**Fundamentals of Mechanical Engineering Design**	**Advanced Mechanical Engineering Design (part 1)**	**Advanced Mechanical Engineering Design (part 2)**	**Advanced Mechanical Design Project**	**Foundations of Management**
2	Mathematics I VL 4	Fundamentals of Mechanical Engineering Design 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	Mathematics I HÜ 2	Fundamentals of Mechanical Engineering Design HÜ 2	Advanced Mechanical Engineering Design I HÜ 2	Advanced Mechanical Engineering Design II HÜ 2		Management Tutorial GÜ 2
4	Mathematics I GÜ 2		**Mechanical Engineering: Design (part 1)**	**Mechanical Engineering: Design (part 2)**		
5			Embodiment Design and 3D-CAD Introduction and Practical Training VL 2	Team Project Design Methodology PBL 2		
6			Mechanical Design Project I PBL 3	Mechanical Design Project II PBL 3		
7		**Technical Thermodynamics I**	**Basics of Electrical Engineering**	**Fluid Dynamics**	**Introduction to Control Systems**	**Digital Product Development and Lightweight Design**
8		Technical Thermodynamics I VL 2	Basics of Electrical Engineering VL 3	Fluid Mechanics VL 3	Introduction to Control Systems VL 2	Digital Product Development VL 2
9	**Fundamentals of Materials Science**	Technical Thermodynamics I HÜ 1	Basics of Electrical Engineering GÜ 2	Fluid Mechanics HÜ 2	Introduction to Control Systems GÜ 2	Development of Lightweight Design Products VL 2
10	Fundamentals of Materials Science II VL 2	Technical Thermodynamics I GÜ 1				CAE-Team Project PBL 2
11	Fundamentals of Materials Science I VL 2					
12	Physical and Chemical Basics of Materials Science VL 2					
13		**Production Engineering**	**Technical Thermodynamics II**	**Computational Mechanics**	**Measurement Technology for Mechanical Engineers**	**Aeronautical Systems**
14		Production Engineering I VL 2	Technical Thermodynamics II VL 2	Computational Multibody Dynamics IV 2	Measurement Technology for Mechanical Engineering VL 2	Air Transportation Systems VL 2
15	**Team Project MB**	Production Engineering II VL 2	Technical Thermodynamics II HÜ 1	Computational Mechanics GÜ 2		Fundamentals of Aircraft Systems VL 2
16	Team Project MB PBL 6	Production Engineering II HÜ 1	Technical Thermodynamics II GÜ 1	Computational Stuctural Mechanics IV 2	Measurement Technology for Mechanical Engineering PR 2	Fundamentals of Aircraft Systems GÜ 1
17		Production Engineering I HÜ 1				Air Transportation Systems HÜ 1
18					Practical Course: Measurement and Control Systems PR 2	
19		**Mathematics II**	**Mathematics III**	**Advanced Materials for Sustainability**		**Modeling, Simulation and Optimization (EN)**
20		Mathematics II VL 4	Analysis III VL 2	Advanced Materials Characterization VL 2		Modeling, Simulation and Optimization IV 4
21	**Computer Science for Engineers - Introduction and Overview**	Mathematics II HÜ 2	Analysis III GÜ 1	Advanced Materials for Sustainability VL 2		
22	Computer Science for Engineers - Introduction and Overview VL 3	Mathematics II GÜ 2	Analysis III HÜ 1	Advanced Materials for Sustainability HÜ 2		
23	Computer Science for Engineers - Introduction and Overview GÜ 2		Differential Equations 1 VL 2			
24			Differential Equations 1 GÜ 1			
25			Differential Equations 1 HÜ 1			**Bachelor Thesis**
26						
27	**Engineering Mechanics I (Stereostatics)**	**Engineering Mechanics II (Elastostatics)**	**Engineering Mechanics III (Dynamics)**			
28	Engineering Mechanics I VL 2	Engineering Mechanics II VL 2	Engineering Mechanics III VL 3			
29	Engineering Mechanics I GÜ 2	Engineering Mechanics II GÜ 2	Engineering Mechanics III GÜ 2			
30	Engineering Mechanics I HÜ 1	Engineering Mechanics II HÜ 2	Engineering Mechanics III HÜ 1			
31						
32						
33						
34						
35						
36						

Non-technical 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.