Course of Study Mechanical Engineering (Study Cohort w23)

Sample course plan A Bachelor Mechanical Engineering (MBBS)
Specialisation Materials in Engineering Sciences

#						
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**	**Enhanced Fundamentals of Materials Science**
8		Technical Thermodynamics I — VL 2	Basics of Electrical Engineering — VL 3	Fluid Mechanics — VL 3	Introduction to Control Systems — VL 2	Materials for Energy Storage and Conversion — 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	Enhanced Fundamentals: Ceramics and Polymers — VL 2
10	Fundamentals of Materials Science II — VL 2	Technical Thermodynamics I — GÜ 1				Enhanced Fundamentals: Ceramics and Polymers — HÜ 1
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**	**Materials Engineering: Materials Selection, Processing and Modelling**
14		Production Engineering I — VL 2	Technical Thermodynamics II — VL 2	Computational Multibody Dynamics — IV 2	Measurement Technology for Mechanical Engineering — VL 2	
15	**Team Project MB**	Production Engineering II — VL 2	Technical Thermodynamics II — HÜ 1	Computational Mechanics — GÜ 2	Measurement Technology for Mechanical Engineering — PR 2	Materials Selection and Processing — VL 3
16	Team Project MB — PBL 6	Production Engineering II — HÜ 1	Technical Thermodynamics II — GÜ 1	Computational Stuctural Mechanics — IV 2		Materials and Process Modeling — VL 3
17		Production Engineering I — HÜ 1			Practical Course: Measurement and Control Systems — PR 2	
18						
19		**Mathematics II**	**Mathematics III**	**Electrical Machines and Actuators**	**Materials Science Laboratory**	**Bachelor Thesis**
20		Mathematics II — VL 4	Analysis III — VL 2	Electrical Machines and Actuators — VL 3	Companion Lecture for Materials Science Laboratory — VL 2	
21	**Computer Science for Engineers - Introduction and Overview**	Mathematics II — HÜ 1	Analysis III — GÜ 1	Electrical Machines and Actuators — HÜ 2		
22		Mathematics II — GÜ 2	Analysis III — HÜ 1		Material Science Laboratory — PR 4	
23	Computer Science for Engineers - Introduction and Overview — VL 3		Differential Equations 1 — VL 2			
24	Computer Science for Engineers - Introduction and Overview — GÜ 2		Differential Equations 1 — GÜ 1			
25			Differential Equations 1 — HÜ 1			
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						

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.