Course of Study Mechanical Engineering (Study Cohort w22)

Sample course plan A Bachelor Mechanical Engineering (MBBS) Dual study program

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						
1	**Production Engineering (part 1)** Production Engineering I VL 2 Production Engineering I HÜ 1	**Fundamentals of Mechanical Engineering Design** Fundamentals of Mechanical Engineering Design VL 2 Fundamentals of Mechanical Engineering Design HÜ 2	**Advanced Mechanical Engineering Design (part 1)** Advanced Mechanical Engineering Design I VL 2 Advanced Mechanical Engineering Design I HÜ 2	**Advanced Mechanical Engineering Design (part 2)** Advanced Mechanical Engineering Design II VL 2 Advanced Mechanical Engineering Design II HÜ 2	**Advanced Mechanical Design Project** Advanced Mechanical Design Project PBL 4	**Foundations of Management** Introduction to Management VL 3 Management Tutorial GÜ 2
2						
3						
4	**Mathematics I** Mathematics I VL 4 Mathematics I HÜ 2 Mathematics I GÜ 2		**Mechanical Engineering: Design (part 1)** Embodiment Design and 3D-CAD Introduction and Practical Training VL 2 Mechanical Design Project I PBL 3	**Mechanical Engineering: Design (part 2)** Team Project Design Methodology PBL 2 Mechanical Design Project II PBL 3		
5						
6						
7		**Technical Thermodynamics I** Technical Thermodynamics I VL 2 Technical Thermodynamics I HÜ 1 Technical Thermodynamics I GÜ 1	**Basics of Electrical Engineering** Basics of Electrical Engineering VL 3 Basics of Electrical Engineering GÜ 2	**Fluid Dynamics** Fluid Mechanics VL 3 Fluid Mechanics HÜ 2	**Introduction to Control Systems** Introduction to Control Systems VL 2 Introduction to Control Systems GÜ 2	**Digital Product Development and Lightweight Design** Digital Product Development VL 2 Development of Lightweight Design Products VL 2 CAE-Team Project PBL 2
8						
9						
10						
11						
12	**Fundamentals of Materials Science (part 1)** Fundamentals of Materials Science I VL 2 Physical and Chemical Basics of Materials Science VL 2					
13		**Mathematics II** Mathematics II VL 4 Mathematics II HÜ 2 Mathematics II GÜ 2	**Technical Thermodynamics II** Technical Thermodynamics II VL 2 Technical Thermodynamics II HÜ 1 Technical Thermodynamics II GÜ 1	**Practical module 4 (dual study program, Bachelor's degree)** Practical term 4 0	**Measurement Technology for Mechanical Engineers** Measurement Technology for Mechanical Engineering VL 2 Measurement Technology for Mechanical Engineering PR 2 Practical Course: Measurement and Control Systems PR 2	**Bachelor thesis (dual study program)**
14						
15						
16	**Team Project MB** Team Project MB PBL 6					
17						
18						
19			**Mathematics III** Analysis III VL 2 Analysis III GÜ 1 Analysis III HÜ 1 Differential Equations 1 VL 2 Differential Equations 1 GÜ 1 Differential Equations 1 HÜ 1	**Computational Mechanics** Computational Multibody Dynamics IV 2 Computational Mechanics GÜ 2 Computational Stuctural Mechanics IV 2	**Practical module 5 (dual study program, Bachelor's degree)** Practical term 5 0	
20						
21		**Practical module 2 (dual study program, Bachelor's degree)** Practical term 2 0				
22	**Computer Science for Engineers - Introduction and Overview** Computer Science for Engineers - Introduction and Overview VL 3 Computer Science for Engineers - Introduction and Overview GÜ 2					
23						
24						
25				**Electrical Machines and Actuators** Electrical Machines and Actuators VL 3 Electrical Machines and Actuators HÜ 2	**Production Technology** Forming and Cutting Technology VL 2 Forming and Cutting Technology HÜ 1 Fundamentals of Machine Tools VL 2 Fundamentals of Machine Tools HÜ 1	
26						
27		**Engineering Mechanics II (Elastostatics)** Engineering Mechanics II VL 2 Engineering Mechanics II GÜ 2 Engineering Mechanics II HÜ 2	**Practical module 3 (dual study program, Bachelor's degree)** Practical term 3 0			
28	**Practical module 1 (dual study program, Bachelor's degree)** Practical term 1 0					
29						
30						
31					**Materials Science Laboratory** Companion Lecture for Materials Science Laboratory VL 2 Material Science Laboratory PR 4	
32						
33		**Production Engineering (part 2)** Production Engineering II VL 2 Production Engineering II HÜ 1	**Engineering Mechanics III (Dynamics)** Engineering Mechanics III VL 3 Engineering Mechanics III GÜ 2 Engineering Mechanics III HÜ 1			
34	**Engineering Mechanics I (Stereostatics)** Engineering Mechanics I VL 2 Engineering Mechanics I GÜ 2 Engineering Mechanics I HÜ 1					
35						
36						
37		**Fundamentals of Materials Science (part 2)** Fundamentals of Materials Science II VL 2				
38						
39						

Linking theory and practice (dual study program, Bachelor's degree) (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.