Course of Study Mechanical Engineering (Study Cohort w20)

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	**Production Engineering (part 1)** Production Engineering I VL 2 Production Engineering I HÜ 1	**Production Engineering (part 2)** Production Engineering II VL 2 Production Engineering II HÜ 1	**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	**Computer Science for Mechanical Engineers** Computer Science for Mechanical Engineers VL 3 Computer Science for Mechanical Engineers GÜ 2	**Fundamentals of Materials Science (part 2)** Fundamentals of Materials Science II VL 2	**Mechanical Engineering: Design (part 1)** Embodiment Design and 3D-CAD 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		**Fundamentals of Mechanical Engineering Design** Fundamentals of Mechanical Engineering Design VL 2 Fundamentals of Mechanical Engineering Design HÜ 2				
7			**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	**Integrated Product Development and Lightweight Design** Integrated Product Development I VL 2 Development of Lightweight Design Products VL 2 CAE-Team Project PBL 2
8						
9						
10	**Mathematics I** Linear Algebra I VL 2 Linear Algebra I GÜ 1 Linear Algebra I HÜ 1 Analysis I VL 2 Analysis I GÜ 1 Analysis I HÜ 1	**Technical Thermodynamics I** Technical Thermodynamics I VL 2 Technical Thermodynamics I HÜ 1 Technical Thermodynamics I GÜ 1				
11						
12						
13			**Technical Thermodynamics II** Technical Thermodynamics II VL 2 Technical Thermodynamics II HÜ 1 Technical Thermodynamics II GÜ 1	**Mechanics IV (Oscillations, Analytical Mechanics, Multibody Systems, Numerical Mechanics)** Mechanics IV VL 3 Mechanics IV GÜ 2 Mechanics IV HÜ 1	**Measurement Technology for Mechanical Engineers** Measurement Technology for Mechanical Engineering VL 2 Measurement Technology for Mechanical Engineering HÜ 1 Practical Course: Measurement and Control Systems PR 2	**Aeronautical Systems** Air Transportation Systems VL 2 Fundamentals of Aircraft Systems VL 2 Fundamentals of Aircraft Systems GÜ 1 Air Transportation Systems HÜ 1
14						
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16						
17						
18	**Mechanics I (Statics)** Mechanics I VL 2 Mechanics I GÜ 2 Mechanics I HÜ 1	**Mechanics II: Mechanics of Materials** Mechanics II VL 2 Mechanics II GÜ 2 Mechanics II HÜ 2				
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	**Advanced Materials** Advanced Materials Characterization VL 2 Advanced Materials Design VL 2 Advanced Materials Design HÜ 2	**Simulation and Design of Mechatronic Systems** Simulation and Design of Mechatronic Systems VL 2 Simulation and Design of Mechatronic Systems HÜ 1 Simulation and Design of Mechatronic Systems PR 1	**Bachelor Thesis**
20						
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24	**Fundamentals of Materials Science (part 1)** Fundamentals of Materials Science I VL 2 Physical and Chemical Basics of Materials Science VL 2	**Mathematics II** Linear Algebra II VL 2 Linear Algebra II GÜ 1 Linear Algebra II HÜ 1 Analysis II VL 2 Analysis II HÜ 1 Analysis II GÜ 1				
25						
26						
27						
28	**Team Project MB** Team Project MB PBL 6		**Mechanics III (Dynamics)** Mechanics III VL 3 Mechanics III GÜ 2 Mechanics III HÜ 1			
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31						
32						
33						

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.