Course of Study Mechanical Engineering (Study Cohort w23)

Sample course plan C Bachelor Mechanical Engineering (MBBS)

Specialisation Energy Systems

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** Mathematics I VL 4 Mathematics I HÜ 2 Mathematics I GÜ 2	**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			**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						
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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	**Reciprocating Machinery (part 2)** Internal Combustion Engines I VL 2 Internal Combustion Engines I HÜ 1
8						
9	**Fundamentals of Materials Science** Fundamentals of Materials Science II VL 2 Fundamentals of Materials Science I VL 2 Physical and Chemical Basics of Materials Science VL 2					**Bachelor Thesis**
10						
11						
12						
13		**Production Engineering** Production Engineering I VL 2 Production Engineering II VL 2 Production Engineering II HÜ 1 Production Engineering I HÜ 1	**Technical Thermodynamics II** Technical Thermodynamics II VL 2 Technical Thermodynamics II HÜ 1 Technical Thermodynamics II GÜ 1	**Computational Mechanics** Computational Multibody Dynamics IV 2 Computational Mechanics GÜ 2 Computational Stuctural Mechanics IV 2	**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	
14						
15	**Team Project MB** Team Project MB PBL 6					
16						
17						
18						
19		**Mathematics II** Mathematics II VL 4 Mathematics II HÜ 2 Mathematics II GÜ 2	**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 for Sustainability** Advanced Materials Characterization VL 2 Advanced Materials for Sustainability VL 2 Advanced Materials for Sustainability HÜ 2	**Heat Transfer** Heat Transfer VL 3 Heat Transfer HÜ 2	
20						
21	**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					
22						
23						
24					**Reciprocating Machinery (part 1)** Fundamentals of Reciprocating Engines and Turbomachinery - Part Reciprocating Engines VL 1 Fundamentals of Reciprocating Engines and Turbomachinery - Part Reciprocating Engines HÜ 1	
25						
26						
27	**Engineering Mechanics I (Stereostatics)** Engineering Mechanics I VL 2 Engineering Mechanics I GÜ 2 Engineering Mechanics I HÜ 1	**Engineering Mechanics II (Elastostatics)** Engineering Mechanics II VL 2 Engineering Mechanics II GÜ 2 Engineering Mechanics II HÜ 2	**Engineering Mechanics III (Dynamics)** Engineering Mechanics III VL 3 Engineering Mechanics III GÜ 2 Engineering Mechanics III HÜ 1		**Gas and Steam Power Plants** Gas and Steam Power Plants VL 3 Gas and Steam Power Plants HÜ 1	
28						
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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.