Course of Study Mechanical Engineering (Study Cohort w23)

Sample course plan C Bachelor Mechanical Engineering (MBBS)

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

Thesis Compulsory

Interdisciplinary complement

Focus Compulsory

Focus Elective Compulsory

Core Qualification Elective Compulsory Specialisation Elective Compulsory

The choice of courses from the catalogue is flexible (depends on the semestral work load), provided the necessary number of required credits is reached.