Course of Study Mechatronics (Study Cohort w20)

Legend:

Core Qualification Compulsory	Specialisation Compulsory	Focus Compulsory	Thesis Compulsory
Core Qualification Elective Compulsory	Specialisation Elective Compulsory	Focus Elective Compulsory	Interdisciplinary complement

Sample course plan C Bachelor Mechatronics (MECBS)

1	**Procedural Programming** Procedural Programming VL 1 Procedural Programming HÜ 1 Procedural Programming PR 2	**Electrical Engineering II: Alternating Current Networks and Basic Devices** Electrical Engineering II: Alternating Current Networks and Basic Devices VL 3 Electrical Engineering II: Alternating Current Networks and Basic Devices GÜ 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	**Technical Thermodynamics II** Technical Thermodynamics II VL 2 Technical Thermodynamics II HÜ 1 Technical Thermodynamics II GÜ 1	**Electrical Machines and Actuators** Electrical Machines and Actuators VL 3 Electrical Machines and Actuators HÜ 2
2						
3						
4			**Electrical Engineering III: Circuit Theory and Transients** Circuit Theory VL 3 Circuit Theory GÜ 2	**Production Engineering (part 2)** Production Engineering II VL 2 Production Engineering II HÜ 1		
5						
6						
7	**Electrical Engineering I: Direct Current Networks and Electromagnetic Fields** Electrical Engineering I: Direct Current Networks and Electromagnetic Fields VL 3 Electrical Engineering I: Direct Current Networks and Electromagnetic Fields GÜ 2	**Fundamentals of Mechanical Engineering Design** Fundamentals of Mechanical Engineering Design VL 2 Fundamentals of Mechanical Engineering Design HÜ 2		**Technical Thermodynamics I** Technical Thermodynamics I VL 2 Technical Thermodynamics I HÜ 1 Technical Thermodynamics I GÜ 1	**Foundations of Management** Introduction to Management VL 3 Management Tutorial GÜ 2	**Semiconductor Circuit Design** Semiconductor Circuit Design VL 3 Semiconductor Circuit Design GÜ 1
8						
9						
10			**Production Engineering (part 1)** Production Engineering I VL 2 Production Engineering I HÜ 1			
11						
12						
13	**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	**Mechanics II: Mechanics of Materials** Mechanics II VL 2 Mechanics II GÜ 2 Mechanics II HÜ 2	**Computer Engineering** Computer Engineering VL 3 Computer Engineering GÜ 1	**Signals and Systems** Signals and Systems VL 3 Signals and Systems GÜ 2	**Introduction to Control Systems** Introduction to Control Systems VL 2 Introduction to Control Systems GÜ 2	**Bachelor Thesis**
14						
15						
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19		**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	**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	**Mathematics IV** Complex Functions VL 2 Complex Functions GÜ 1 Complex Functions HÜ 1 Differential Equations 2 VL 2 Differential Equations 2 GÜ 1 Differential Equations 2 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	
20						
21	**Mechanics I (Statics)** Mechanics I VL 2 Mechanics I GÜ 2 Mechanics I HÜ 1					
22						
23						
24						
25				**Mechanics IV (Oscillations, Analytical Mechanics, Multibody Systems, Numerical Mechanics)** Mechanics IV VL 3 Mechanics IV GÜ 2 Mechanics IV HÜ 1	**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	
26						
27	**Fundamentals of Materials Science (part 1)** Fundamentals of Materials Science I VL 2 Physical and Chemical Basics of Materials Science VL 2	**Fundamentals of Materials Science (part 2)** Fundamentals of Materials Science II VL 2	**Mechanics III (Dynamics)** Mechanics III VL 3 Mechanics III GÜ 2 Mechanics III HÜ 1			
28						
29						
30						
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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.