Course of Study Mechatronics (Study Cohort w20)

Sample course plan B Bachelor Mechatronics (MECBS)

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1	**Procedural Programming**	**Electrical Engineering II: Alternating Current Networks and Basic Devices**	**Mechanical Engineering: Design (part 1)**	**Mechanical Engineering: Design (part 2)**	**Technical Thermodynamics II**	**Electrical Machines and Actuators**
2	Procedural Programming VL 1		Embodiment Design and 3D-CAD VL 2	Team Project Design Methodology PBL 2	Technical Thermodynamics II VL 2	Electrical Machines and Actuators VL 3
3	Procedural Programming HÜ 1	Electrical Engineering II: Alternating Current VL 3 Networks and Basic Devices	Mechanical Design Project I PBL 3	Mechanical Design Project II PBL 3	Technical Thermodynamics II HÜ 1	Electrical Machines and Actuators HÜ 2
4	Procedural Programming PR 2	Electrical Engineering II: Alternating Current GÜ 2 Networks and Basic Devices			Technical Thermodynamics II GÜ 1	
5			**Electrical Engineering III: Circuit Theory and Transients**	**Production Engineering (part 2)**		
6			Circuit Theory VL 3	Production Engineering II VL 2		
7	**Electrical Engineering I: Direct Current Networks and Electromagnetic Fields**	**Fundamentals of Mechanical Engineering Design**	Circuit Theory GÜ 2	Production Engineering II HÜ 1	**Technical Thermodynamics I**	**Foundations of Management**	**Semiconductor Circuit Design**
8	Electrical Engineering I: Direct Current Networks VL 3 and Electromagnetic Fields	Fundamentals of Mechanical Engineering Design VL 2			Technical Thermodynamics I VL 2	Introduction to Management VL 3	Semiconductor Circuit Design VL 3
9		Fundamentals of Mechanical Engineering Design HÜ 2			Technical Thermodynamics I HÜ 1	Management Tutorial GÜ 2	Semiconductor Circuit Design GÜ 1
10	Electrical Engineering I: Direct Current Networks GÜ 2 and Electromagnetic Fields		**Production Engineering (part 1)**		Technical Thermodynamics I GÜ 1		
11			Production Engineering I VL 2				
12			Production Engineering I HÜ 1				
13	**Mathematics I**	**Mechanics II: Mechanics of Materials**	**Computer Engineering**	**Signals and Systems**	**Introduction to Control Systems**	**Bachelor Thesis**
14	Linear Algebra I VL 2	Mechanics II VL 2	Computer Engineering VL 3	Signals and Systems VL 3	Introduction to Control Systems VL 2	
15	Linear Algebra I GÜ 1	Mechanics II GÜ 2	Computer Engineering GÜ 1	Signals and Systems GÜ 2	Introduction to Control Systems GÜ 2	
16	Linear Algebra I HÜ 1	Mechanics II HÜ 2				
17	Analysis I VL 2					
18	Analysis I GÜ 1					
19	Analysis I HÜ 1	**Mathematics II**	**Mathematics III**	**Mathematics IV**	**Measurement Technology for Mechanical Engineers**	
20		Linear Algebra II VL 2	Analysis III VL 2	Complex Functions VL 2	Measurement Technology for Mechanical VL 2 Engineering	
21	**Mechanics I (Statics)**	Linear Algebra II GÜ 1	Analysis III GÜ 1	Complex Functions GÜ 1		
22	Mechanics I VL 2	Linear Algebra II HÜ 1	Analysis III HÜ 1	Complex Functions HÜ 1	Measurement Technology for Mechanical HÜ 1 Engineering	
23	Mechanics I GÜ 2	Analysis II VL 2	Differential Equations 1 VL 2	Differential Equations 2 VL 2		
24	Mechanics I HÜ 1	Analysis II HÜ 1	Differential Equations 1 GÜ 1	Differential Equations 2 GÜ 1	Practical Course: Measurement and Control PR 2 Systems	
25		Analysis II GÜ 1	Differential Equations 1 HÜ 1	Differential Equations 2 HÜ 1		
26				**Mechanics IV (Oscillations, Analytical Mechanics, Multibody Systems, Numerical Mechanics)**	**Simulation and Design of Mechatronic Systems**	
27	**Fundamentals of Materials Science (part 1)**	**Fundamentals of Materials Science (part 2)**	**Mechanics III (Dynamics)**	Mechanics IV VL 3	Simulation and Design of Mechatronic Systems VL 2	
28	Fundamentals of Materials Science I VL 2	Fundamentals of Materials Science II VL 2	Mechanics III VL 3	Mechanics IV GÜ 2	Simulation and Design of Mechatronic Systems HÜ 1	
29	Physical and Chemical Basics of Materials Science VL 2		Mechanics III GÜ 2	Mechanics IV HÜ 1	Simulation and Design of Mechatronic Systems PR 1	
30			Mechanics III HÜ 1			
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The choice of courses from the catalogue is flexible (depends on the semestral work load), provided the necessary number of required credits is reached.