Course of Study General Engineering Science (German program, 7 semester) (Study Cohort w20)

Sample course plan A Bachelor General Engineering Science (German program, 7 semester) (AIWBS(7))

Specialisation Mechanical Engineering, Focus Mechatronics

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1	**Chemistry**	**Electrical Engineering II: Alternating Current Networks and Basic Devices**	**Technical Thermodynamics II**	**Signals and Systems**	**Introduction to Control Systems**	**Foundations of Management**	**Advanced Internship AIW/ ES**
2	Chemistry I+II VL 4	Electrical Engineering II: Alternating Current Networks and Basic Devices VL 3	Technical Thermodynamics II VL 2	Signals and Systems VL 3	Introduction to Control Systems VL 2	Introduction to Management VL 3	Advanced Internship AIW/ ES: Preparation SE 1
3	Chemistry I+II HÜ 2	Electrical Engineering II: Alternating Current Networks and Basic Devices GÜ 2	Technical Thermodynamics II HÜ 1	Signals and Systems GÜ 2	Introduction to Control Systems GÜ 2	Management Tutorial GÜ 2	Advanced Intenship AIW/ ES: Internship- accompanying Seminar SE 1
4			Technical Thermodynamics II GÜ 1				
5							
6							
7	**Electrical Engineering I: Direct Current Networks and Electromagnetic Fields**	**Fundamentals of Mechanical Engineering Design**	**Mathematics III**	**Fluid Dynamics**	**Measurement Technology for Mechanical Engineers**	**Electrical Machines and Actuators**	
8	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields VL 3	Fundamentals of Mechanical Engineering Design VL 2	Analysis III VL 2	Fluid Mechanics VL 3	Measurement Technology for Mechanical Engineering VL 2	Electrical Machines and Actuators VL 3	
9	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields GÜ 2	Fundamentals of Mechanical Engineering Design HÜ 2	Analysis III GÜ 1	Fluid Mechanics HÜ 2	Measurement Technology for Mechanical Engineering HÜ 1	Electrical Machines and Actuators HÜ 2	
10			Analysis III HÜ 1		Practical Course: Measurement and Control Systems PR 2		
11			Differential Equations 1 VL 2				
12			Differential Equations 1 GÜ 1				
			Differential Equations 1 HÜ 1				
13	**Mathematics I**	**Technical Thermodynamics I**		**Mechanics IV (Oscillations, Analytical Mechanics, Multibody Systems, Numerical Mechanics)**	**Electrical Engineering III: Circuit Theory and Transients**	**Semiconductor Circuit Design**	
14	Linear Algebra I VL 2	Technical Thermodynamics I VL 2		Mechanics IV VL 3	Circuit Theory VL 3	Semiconductor Circuit Design VL 3	
15	Linear Algebra I GÜ 1	Technical Thermodynamics I HÜ 1	**Mechanics III (Dynamics)**	Mechanics IV GÜ 2	Circuit Theory GÜ 2	Semiconductor Circuit Design GÜ 1	
16	Linear Algebra I HÜ 1	Technical Thermodynamics I GÜ 1	Mechanics III VL 3	Mechanics IV HÜ 1			
17	Analysis I VL 2		Mechanics III GÜ 2				
18	Analysis I GÜ 1		Mechanics III HÜ 1				
	Analysis I HÜ 1						
19		**Mechanics II: Mechanics of Materials**		**Advanced Mechanical Engineering Design (part 2)**	**Computer Engineering**	**Mathematics IV**	**Bachelor Thesis**
20		Mechanics II VL 2		Advanced Mechanical Engineering Design II VL 2	Computer Engineering VL 3	Complex Functions VL 2	
21	**Mechanics I (Statics)**	Mechanics II GÜ 2		Advanced Mechanical Engineering Design II HÜ 2	Computer Engineering GÜ 1	Complex Functions GÜ 1	
	Mechanics I VL 2	Mechanics II HÜ 2	**Advanced Mechanical Engineering Design (part 1)**			Complex Functions HÜ 1	
	Mechanics I GÜ 2		Advanced Mechanical Engineering Design I VL 2	**Mechanical Engineering: Design (part 2)**		Differential Equations 2 VL 2	
22	Mechanics I HÜ 1		Advanced Mechanical Engineering Design I HÜ 2	Team Project Design Methodology PBL 2		Differential Equations 2 GÜ 1	
23				Mechanical Design Project II PBL 3		Differential Equations 2 HÜ 1	
24			**Mechanical Engineering: Design (part 1)**				
25		**Mathematics II**	Embodiment Design and 3D-CAD VL 2	**Fundamentals of Materials Science (part 2)**	**Numerical Mathematics I**		
26		Linear Algebra II VL 2	Mechanical Design Project I PBL 3	Fundamentals of Materials Science II VL 2	Numerical Mathematics I VL 2		
27	**Programming in C**	Linear Algebra II GÜ 2			Numerical Mathematics I GÜ 2		
28	Programming in C VL 1	Linear Algebra II HÜ 1	**Fundamentals of Materials Science (part 1)**				
	Programming in C PR 1	Analysis II VL 2	Fundamentals of Materials Science I VL 2				
29	**Physics for Engineers (AIW)**	Analysis II HÜ 1	Physical and Chemical Basics of Materials Science VL 2				
30	Physics for Engineers VL 2	Analysis II GÜ 1					
31	Physics for Engineers GÜ 1						
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.