

Course of Study General Engineering Science (German program, 7 semester) (Study Cohort w21)

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

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

Specialisation	Mechanical Engineering	Focus	Mechatronics	Semester 3	Semester 4	Semester 5	Semester 6	Semester 7
				FormHrs/wk	FormHrs/wk	FormHrs/wk	FormHrs/wk	FormHrs/wk
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: 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	Preparation
4			Electrical Engineering II: Alternating Current Networks and Basic Devices	Technical Thermodynamics II GÜ 1				Advanced Internship AIW/ ES: Internship-accompanying Seminar SE 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 Engineers VL 2	Electrical Machines and Actuators VL 3	
9	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields HÜ 2		Fundamentals of Mechanical Engineering Design HÜ 2	Analysis III GÜ 1	Fluid Mechanics HÜ 2	Measurement Technology for Mechanical Engineers HÜ 1	Electrical Machines and Actuators HÜ 2	
10	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields GÜ 2			Differential Equations 1 VL 2		Measurement Technology for Mechanical Engineers GÜ 2		
11				Differential Equations 1 GÜ 1		Practical Course: Measurement and Control Systems PR 2		
12				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				
19	Analysis I HÜ 1							
20			Mechanics II: Mechanics of Materials		Advanced Mechanical Engineering Design (part 2)	Numerical Mathematics I	Mathematics IV	Bachelor Thesis
21	Mechanics I (Statics)		Mechanics II VL 2		Advanced Mechanical Engineering VL 2	Numerical Mathematics I VL 2	Complex Functions VL 2	
22	Mechanics I GÜ 2		Mechanics II GÜ 2	Advanced Mechanical Engineering Design (part 1)	Design II HÜ 2	Numerical Mathematics I GÜ 2	Complex Functions GÜ 1	
23	Mechanics I HÜ 1		Mechanics II HÜ 2	Advanced Mechanical Engineering VL 2	Advanced Mechanical Engineering HÜ 2		Complex Functions HÜ 1	
24				Design I	Design II		Differential Equations 2 VL 2	
25				Advanced Mechanical Engineering HÜ 2	Mechanical Engineering: Design (part 2)		Differential Equations 2 GÜ 1	
26				Design I	Team Project Design Methodology PBL 2		Differential Equations 2 HÜ 1	
27				Mechanical Engineering: Design (part 1)	Mechanical Design Project II PBL 3			
28			Mathematics II	Embodiment Design and 3D-CAD VL 2				
29	Computer Science for Engineers - Introduction and Overview		Linear Algebra II VL 2	Mechanical Design Project I PBL 3	Fundamentals of Materials Science (part 2)		Computer Science for Engineers - Programming Concepts, Data Handling & Communication	
30	Computer Science for Engineers - Introduction and Overview VL 3		Linear Algebra II GÜ 1		Fundamentals of Materials Science II VL 2		Computer Science for Engineers - Programming Concepts, Data Handling & Communication VL 3	
31	Computer Science for Engineers - Introduction and Overview GÜ 2		Linear Algebra II HÜ 1				Computer Science for Engineers - Programming Concepts, Data Handling & Communication GÜ 2	
32			Linear Algebra II GÜ 1					
			Analysis II VL 2					
			Analysis II HÜ 1	Fundamentals of Materials Science (part 1)				
			Analysis II GÜ 1	Fundamentals of Materials Science I VL 2				
				Physical and Chemical Basics of Materials Science VL 2				

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.

