

Course of Study General Engineering Science (German program, 7 semester) (Study Cohort w19)

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 - Bachelor General Engineering Science (German program, 7 semester) (AIWBS(7))

Specialisation: Mechanical Engineering, Focus: Materials in Engineering Sciences			Semester 4	Semester 5	Semester 6	Semester 7		
Form	Hrs/wk	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 VL 2		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 II VL 2		Electrical Engineering II: Alternating Current Networks and Basic Devices VL 3	Technical Thermodynamics II HÜ 1	Signals and Systems GÜ 2	Introduction to Control Systems GÜ 2	Management Tutorial GÜ 2	Advanced Internship AIW/ ES: Internship-accompanying Seminar SE 1
4	Chemistry I HÜ 1		Electrical Engineering II: Alternating Current Networks and Basic Devices GÜ 2	Technical Thermodynamics II GÜ 1				
5	Chemistry II HÜ 1							
6								
7	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields		Fundamentals of Mechanical Engineering Design	Mathematics III	Fluid Dynamics	Computer Engineering	Advanced Materials	
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	Computer Engineering VL 3	Advanced Materials Characterization VL 2	
9	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields HÜ 1		Fundamentals of Mechanical Engineering Design HÜ 1	Analysis III GÜ 1	Fluid Mechanics HÜ 2	Computer Engineering GÜ 1	Advanced Materials Design VL 2	
10	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields GÜ 2		Fundamentals of Mechanical Engineering Design HÜ 2	Analysis III HÜ 1			Advanced Materials Design HÜ 2	
11				Differential Equations 1 VL 2				
12				Differential Equations 1 GÜ 1				
13				Differential Equations 1 HÜ 1				
13	Mathematics I		Technical Thermodynamics I		Mechanics IV (Oscillations, Analytical Mechanics, Multibody Systems, Numerical Mechanics)	Measurement Technology for Mechanical Engineers	Enhanced Fundamentals of Materials Science	
14	Linear Algebra I VL 2		Technical Thermodynamics I VL 2		Mechanics IV VL 3	Measurement Technology for Mechanical Engineers VL 2	Enhanced Fundamentals: Metals VL 2	
15	Linear Algebra I GÜ 1		Technical Thermodynamics I HÜ 1		Mechanics IV GÜ 2	Measurement Technology for Mechanical Engineers HÜ 1	Enhanced Fundamentals: Ceramics and Polymers VL 2	
16	Linear Algebra I HÜ 1		Technical Thermodynamics I GÜ 1		Mechanics IV HÜ 1	Practical Course: Measurement and Control Systems PR 2	Enhanced Fundamentals: Ceramics and Polymers HÜ 1	
17	Analysis I VL 2			Mechanics III (Dynamics)				
18	Analysis I GÜ 1			Mechanics III VL 3				
19	Analysis I HÜ 1			Mechanics III GÜ 2				
20				Mechanics III HÜ 1				
20			Mechanics II: Mechanics of Materials		Mechanical Engineering: Design (part 2)	Numerical Mathematics I	Structural Materials (part 2)	Bachelor Thesis
21			Mechanics II VL 2		Team Project Design Methodology PBL 2	Numerical Mathematics I VL 2	Fundamentals of Mechanical Properties of Materials VL 2	
22	Mechanics I (Statics)		Mechanics II GÜ 2		Mechanical Design Project II PBL 3	Numerical Mathematics I GÜ 2		
23	Mechanics I VL 2		Mechanics II HÜ 2	Mechanical Engineering: Design (part 1)				
24	Mechanics I GÜ 2			Embodiment Design and 3D-CAD VL 2	Fundamentals of Materials Science (part 2)			
25	Mechanics I HÜ 1			Mechanical Design Project I PBL 3	Fundamentals of Materials Science II VL 2		Materials Engineering: Materials Selection, Processing and Modelling (part 2)	
26							Materials Selection and Processing VL 3	
27				Fundamentals of Materials Science (part 1)	Advanced Mechanical Engineering Design (part 2)	Structural Materials (part 1)	Materials and Process Modeling VL 3	
28	Programming in C			Fundamentals of Materials Science I VL 2	Advanced Mechanical Engineering Design II VL 2	Welding Technology VL 3		
29	Programming in C VL 1			Physical and Chemical Basics of Materials Science VL 2	Advanced Mechanical Engineering Design II HÜ 2			
30	Programming in C PR 1			Analysis II VL 2				
31				Analysis II HÜ 1				
32	Physics for Engineers (AIW)			Analysis II GÜ 1				
33	Physics for Engineers VL 2			Advanced Mechanical Engineering Design (part 1)		Material Science Laboratory		
34	Physics for Engineers GÜ 1			Advanced Mechanical Engineering Design I VL 2		Companion Lecture for Materials Science Laboratory VL 2		
35				Advanced Mechanical Engineering Design I HÜ 2		Material Science Laboratory PR 4		
36								
37								
38								
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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.

