

# Course of Study General Engineering Science (German program, 7 semester) (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 A Bachelor General Engineering Science (German program, 7 semester) (AIWBS(7))

Specialisation	Process Engineering	Semester 2 FormHrs/wk	Semester 3 FormHrs/wk	Semester 4 FormHrs/wk	Semester 5 FormHrs/wk	Semester 6 FormHrs/wk	Semester 7 FormHrs/wk
1	<b>Chemistry</b>	<b>Electrical Engineering II: Alternating Current Networks and Basic Devices</b>	<b>Technical Thermodynamics II</b>	<b>Signals and Systems</b>	<b>Introduction to Control Systems</b>	<b>Foundations of Management</b>	<b>Advanced Internship AIW/ ES</b>
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							Advanced Internship AIW/ ES: Internship-accompanying Seminar SE 1
5							
6							
7	<b>Electrical Engineering I: Direct Current Networks and Electromagnetic Fields</b>	<b>Fundamentals of Mechanical Engineering Design</b>	<b>Mathematics III</b>	<b>Fundamentals of Fluid Mechanics</b>	<b>Heat and Mass Transfer</b>	<b>Process and Plant Engineering I</b>	
8	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields VL 3	Fundamentals of Mechanical Engineering Design VL 2	Analysis III VL 2	Fundamentals of Fluid Mechanics VL 2	Heat and Mass Transfer VL 2	Process and Plant Engineering I VL 2	
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 for Process Engineering HÜ 2	Heat and Mass Transfer GÜ 1	Process and Plant Engineering I HÜ 1	
10			Analysis III HÜ 1		Heat and Mass Transfer HÜ 1	Process and Plant Engineering I GÜ 1	
11			Differential Equations 1 VL 2				
12			Differential Equations 1 GÜ 1				
13			Differential Equations 1 HÜ 1				
13	<b>Mathematics I</b>	<b>Technical Thermodynamics I</b>		<b>Phase Equilibria Thermodynamics</b>	<b>Thermal Separation Processes</b>	<b>Particle Technology and Solids Process Engineering</b>	
14	Linear Algebra I VL 2	Technical Thermodynamics I VL 2		Phase Equilibria Thermodynamics VL 2	Thermal Separation Processes VL 2	Particle Technology and Solids Process Engineering VL 2	
15	Linear Algebra I GÜ 1	Technical Thermodynamics I HÜ 1		Phase Equilibria Thermodynamics GÜ 1	Thermal Separation Processes GÜ 2	Particle Technology I VL 2	
16	Linear Algebra I HÜ 1	Technical Thermodynamics I GÜ 1	<b>Mechanics III (Dynamics)</b>	Phase Equilibria Thermodynamics HÜ 1	Thermal Separation Processes HÜ 1	Particle Technology I GÜ 1	
17	Analysis I VL 2		Mechanics III VL 3		Separation Processes PR 1	Particle Technology I PR 2	
18	Analysis I GÜ 1		Mechanics III GÜ 2				
19	Analysis I HÜ 1		Mechanics III HÜ 1				
20		<b>Mechanics II: Mechanics of Materials</b>		<b>Renewables Energy Systems</b>	<b>Chemical Reaction Engineering (part 1)</b>	<b>Chemical Reaction Engineering (part 2)</b>	<b>Bachelor Thesis</b>
21		Mechanics II VL 2		Renewable Energy VL 2	Chemical Reaction Engineering VL 2	Experimental Course Chemical Engineering PR 2	
22	<b>Mechanics I (Statics)</b>	Mechanics II GÜ 2	<b>Computer Engineering</b>	Energy Systems and Energy Industry VL 2	Chemical Reaction Engineering HÜ 2		
23	Mechanics I VL 2	Mechanics II HÜ 2	Computer Engineering VL 3	Power Industry VL 1			
24	Mechanics I GÜ 2		Computer Engineering GÜ 1	Renewable Energy GÜ 1			
25	Mechanics I HÜ 1				<b>Measurement Technology for Chemical and Bioprocess Engineering</b>		
26		<b>Mathematics II</b>		<b>Bioprocess Engineering - Fundamentals</b>	Measurement Technology VL 2		
27		Linear Algebra II VL 2		Bioprocess Engineering - Fundamentals VL 2	Physical Fundamentals of Measurement Technology VL 2		
28	<b>Programming in C</b>	Linear Algebra II GÜ 1	<b>Fundamentals of Process Engineering and Material Engineering</b>	Bioprocess Engineering - Fundamentals HÜ 2	Practical Course Measurement Technology PR 2		
29	Programming in C VL 1	Linear Algebra II HÜ 1	Introduction into Process Engineering/Bioprocess Engineering VL 2	Bioprocess Engineering - Fundamental PR 2			
30	Programming in C PR 1	Analysis II VL 2	Fundamentals of material engineering VL 2		<b>Environmental Technology</b>		
31		Analysis II HÜ 1			Environmental Assessment VL 2		
32	<b>Physics for Engineers (AIW)</b>	Analysis II GÜ 1			Case studies project assessment GÜ 1		
	Physics for Engineers VL 2						
	Physics for Engineers GÜ 1						

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.

