

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

Specialisation: Bioprocess Engineering			Semester 2	Semester 3	Semester 4	Semester 5	Semester 6	Semester 7
			FormHrs/wk	FormHrs/wk	FormHrs/wk	FormHrs/wk	FormHrs/wk	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				
19			<b>Mechanics II: Mechanics of Materials</b>		<b>Biochemistry and Microbiology</b>	<b>Chemical Reaction Engineering (part 1)</b>	<b>Chemical Reaction Engineering (part 2)</b>	<b>Bachelor Thesis</b>
20			Mechanics II VL 2		Biochemistry VL 2	Chemical Reaction Engineering VL 2	Experimental Course Chemical Engineering PR 2	
21			Mechanics II GÜ 2		Biochemistry PBL 1	Chemical Reaction Engineering HÜ 2		
22	<b>Mechanics I (Statics)</b>		Mechanics II HÜ 2	<b>Computer Engineering</b>	Microbiology VL 2			
23	Mechanics I VL 2			Computer Engineering VL 3	Microbiology PBL 1			
24	Mechanics I GÜ 2			Computer Engineering GÜ 1				
25	Mechanics I HÜ 1					<b>Bioprocess Engineering - Advanced</b>		
26						Bioprocess Engineering - Advanced VL 2		
27			<b>Mathematics II</b>			Bioprocess Engineering - Advanced GÜ 2		
28	<b>Programming in C</b>		Linear Algebra II VL 2		<b>Bioprocess Engineering - Fundamentals</b>			
29	Programming in C VL 1		Linear Algebra II GÜ 1		Bioprocess Engineering - Fundamentals VL 2			
30	Programming in C PR 1		Linear Algebra II HÜ 1	<b>Fundamentals of Process Engineering and Material Engineering</b>	Bioprocess Engineering - Fundamentals HÜ 2			
31			Analysis II VL 2	Introduction into Process Engineering/Bioprocess Engineering VL 2	Bioprocess Engineering - Fundamental PR 2			
32	<b>Physics for Engineers (AIW)</b>		Analysis II HÜ 1	Fundamentals of material engineering VL 2				
	Physics for Engineers VL 2		Analysis II GÜ 1			<b>Environmental Technology</b>		
	Physics for Engineers GÜ 1					Environmental Assessment VL 2		
						Case studies project assessment 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.

