

# Course of Study Chemical and Bioprocess Engineering (Study Cohort w24)

Sample course plan B Bachelor Chemical and Bioprocess Engineering (CBBS)

		Core Qualification Compulsory		Specialisation Compulsory		Focus Compulsory		Thesis Compulsory	
		Core Qualification Elective Compulsory		Specialisation Elective Compulsory		Focus Elective Compulsory		Interdisciplinary complement	
Specialisation Bio Engineering									
1	<b>Mathematics I</b>	<b>Biological and Biochemical Fundamentals (part 2)</b>		<b>Technical Thermodynamics II</b>		<b>Fundamentals of Fluid Mechanics</b>		<b>Heat and Mass Transfer</b>	
2	Mathematics I VL 4	Fundamental Biological and Biochemical PR 3		Technical Thermodynamics II VL 2		Fundamentals of Fluid Mechanics VL 2		Heat and Mass Transfer VL 2	
3	Mathematics I HÜ 2	Practical Course		Technical Thermodynamics II HÜ 1		Fluid Mechanics for Process Engineering HÜ 2		Heat and Mass Transfer GÜ 2	
4	Mathematics I GÜ 2	Introduction to the Biological and Biochemical Practical Course VL 1		Technical Thermodynamics II GÜ 1		Fundamentals on Fluid Mechanics GÜ 2		Heat and Mass Transfer HÜ 1	
5		<b>Technical Thermodynamics I</b>							
6		Technical Thermodynamics I VL 2							
7		Technical Thermodynamics I HÜ 1							
8		Technical Thermodynamics I GÜ 1		<b>Mathematics III</b>		<b>Phase Equilibria Thermodynamics</b>		<b>Thermal Separation Processes</b>	
9	<b>General and Inorganic Chemistry</b>			Analysis III VL 2		Phase Equilibria Thermodynamics VL 2		Thermal Separation Processes VL 2	
10	General and Inorganic Chemistry VL 3			Analysis III GÜ 1		Phase Equilibria Thermodynamics GÜ 1		Thermal Separation Processes GÜ 2	
11	Fundamentals in Inorganic Chemistry PR 3			Analysis III HÜ 1		Phase Equilibria Thermodynamics HÜ 1		Thermal Separation Processes HÜ 1	
12	Fundamentals in Inorganic Chemistry GÜ 1	<b>Mathematics II</b>		Differential Equations 1 VL 2		Phase Equilibria Thermodynamics HÜ 1		Separation Processes PR 1	
13		Mathematics II VL 4		Differential Equations 1 GÜ 1					
14		Mathematics II HÜ 2		Differential Equations 1 GÜ 1		<b>Computer Science for Engineers - Programming Concepts, Data Handling &amp; Communication</b>		<b>Introduction to Control Systems</b>	
15	<b>Introduction to Chemical and Bioengineering</b>	Mathematics II GÜ 2		Differential Equations 1 HÜ 1		Computer Science for Engineers - Programming VL 3		Introduction to Control Systems VL 2	
16	Introduction to Chemical and Bioengineering VL 2			<b>Chemical Reaction Engineering (part 1)</b>		Computer Science for Engineers - Programming Concepts, Data Handling & Communication GÜ 2		Introduction to Control Systems GÜ 2	
17				Chemical Reaction Engineering VL 2					
18	<b>Biological and Biochemical Fundamentals (part 1)</b>			Chemical Reaction Engineering HÜ 2					
19	Biological and Biochemical Fundamentals VL 2	<b>Organic Chemistry</b>		<b>Measurement Technology for Chemical and Bioprocess Engineering</b>		<b>Chemical Reaction Engineering (part 2)</b>		<b>Economic and environmental project assessment</b>	
20	<b>Engineering Mechanics I (Stereostatics)</b>	Organic Chemistry VL 2		Measurement Technology VL 2		Experimental Course Chemical Engineering PR 2		Basics of Environmental Project Assessment VL 2	
21	Engineering Mechanics I VL 2	Organic Chemistry PR 2		Physical Fundamentals of Measurement Technology VL 2				Case studies economic and environmental project assessment GÜ 1	
22	Engineering Mechanics I GÜ 2	Organic Chemistry GÜ 2		Technology		<b>Fundamentals in Molecular Biology</b>		Basics of economic project assessment VL 2	
23	Engineering Mechanics I HÜ 2			Practical Course Measurement Technology PR 2		Genetics and Molecular Biology VL 2			
24						Genetics and Molecular Biology PBL 1			
25						Molecular Biology Lab Course PR 3			
26		<b>Fundamentals of Technical Drawing</b>		<b>Bioprocess Technology I</b>				<b>Bioprocess Technology II</b>	
27		Fundamentals of Technical Drawing VL 1		Bioprocess Technology I VL 2				Bioprocess Technology II VL 2	
28		Fundamentals of Technical Drawing HÜ 1		Bioprocess Technology I HÜ 2				Bioprocess Technology II GÜ 2	
29				Bioprocess Technology I - Fundamental Practical Course PR 2					
30		<b>Engineering Mechanics II (Elastostatics)</b>							
31		Engineering Mechanics II VL 2							
32		Engineering Mechanics II GÜ 2							
33		Engineering Mechanics II HÜ 2							
Non-technical Courses for Bachelors (from catalogue) - 6LP									
Advanced Practical Course in Bioengineering PR 2									

The choice of courses from the catalogue is flexible (depends on the semestral work load), provided the necessary number of required credits is reached.

