

Course of Study Chemical and Bioprocess Engineering (Study Cohort w22)

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

Semester	Specialisation: Bio Engineering		Semester 2		Semester 3		Semester 4		Semester 5		Semester 6	
	Form Hrs/wk		Form Hrs/wk		Form Hrs/wk		Form Hrs/wk		Form Hrs/wk		Form Hrs/wk	
1	Mathematics I		Technical Thermodynamics I		Technical Thermodynamics II		Fundamentals of Fluid Mechanics		Heat and Mass Transfer		Process and Plant Engineering I	
2	Mathematics I	VL 4	Technical Thermodynamics I	VL 2	Technical Thermodynamics II	VL 2	Fundamentals of Fluid Mechanics	VL 2	Heat and Mass Transfer	VL 2	Process and Plant Engineering I	VL 2
3	Mathematics I	HÜ 2	Technical Thermodynamics I	HÜ 1	Technical Thermodynamics II	HÜ 1	Fluid Mechanics for Process Engineering	HÜ 2	Heat and Mass Transfer	GÜ 1	Process and Plant Engineering I	HÜ 1
4	Mathematics I	GÜ 2	Technical Thermodynamics I	GÜ 1	Technical Thermodynamics II	GÜ 1	Fundamentals on Fluid Mechanics	GÜ 2	Heat and Mass Transfer	HÜ 1	Process and Plant Engineering I	GÜ 1
5												
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7												
8			Mathematics II		Mathematics III		Phase Equilibria Thermodynamics		Thermal Separation Processes		Particle Technology and Solids Process Engineering	
9	General and Inorganic Chemistry		Mathematics II	VL 4	Analysis III	VL 2	Phase Equilibria Thermodynamics	VL 2	Thermal Separation Processes	VL 2	Particle Technology I	VL 2
10	General and Inorganic Chemistry	VL 3	Mathematics II	HÜ 2	Analysis III	GÜ 1	Phase Equilibria Thermodynamics	GÜ 1	Thermal Separation Processes	GÜ 2	Particle Technology I	GÜ 1
11	Fundamentals in Inorganic Chemistry	PR 3	Mathematics II	GÜ 2	Differential Equations 1	HÜ 1	Phase Equilibria Thermodynamics	HÜ 1	Thermal Separation Processes	HÜ 1	Particle Technology I	PR 2
12	Fundamentals in Inorganic Chemistry	GÜ 1			Differential Equations 1	VL 2			Separation Processes	PR 1		
13					Differential Equations 1	GÜ 1						
14					Differential Equations 1	HÜ 1						
15	Practical module 1 (dual study program, Bachelor's degree)		Organic Chemistry		Chemical Reaction Engineering (part 1)		Computer Science for Engineers - Programming Concepts, Data Handling & Communication		Introduction to Control Systems		Bioinformatics	
16	Practical term 1	0	Organic Chemistry	VL 4	Chemical Reaction Engineering	VL 2	Computer Science for Engineers - Programming Concepts, Data Handling & Communication	VL 3	Introduction to Control Systems	VL 2	Bioinformatics	SE 2
17			Organic Chemistry	PR 3	Chemical Reaction Engineering	HÜ 2	Computer Science for Engineers - Programming Concepts, Data Handling & Communication	GÜ 2	Introduction to Control Systems	GÜ 2		
18												
19												
20					Measurement Technology for Chemical and Bioprocess Engineering		Practical module 4 (dual study program, Bachelor's degree)		Practical module 5 (dual study program, Bachelor's degree)		Bachelor thesis (dual study program)	
21	Introduction to Chemical and Bioengineering		Fundamentals of Technical Drawing		Measurement Technology		Practical term 4		Practical term 5			
22	Introduction to Chemical and Bioengineering	VL 2	Fundamentals of Technical Drawing	VL 1	Physical Fundamentals of Measurement Technology	VL 2						
23			Fundamentals of Technical Drawing	HÜ 1	Practical Course Measurement Technology	PR 2						
24	Biological and Biochemical Fundamentals (part 1)		Practical module 2 (dual study program, Bachelor's degree)		Practical module 3 (dual study program, Bachelor's degree)		Chemical Reaction Engineering (part 2)		Economic and environmental project assessment			
25	Biological and Biochemical Fundamentals	VL 2	Practical term 2	0	Practical term 3	0	Experimental Course Chemical Engineering	PR 2	Environmental Assessment	VL 2		
26	Engineering Mechanics I (Stereostatics)								Case studies project assessment	GÜ 1		
27	Engineering Mechanics I	VL 2							Economic basics	VL 2		
28	Engineering Mechanics I	GÜ 2										
29	Engineering Mechanics I	HÜ 1										
30			Engineering Mechanics II (Elastostatics)		Bioprocess Technology I		Fundamentals in Molecular Biology					
31			Engineering Mechanics II	VL 2	Bioprocess Technology I	VL 2	Genetics and Molecular Biology	VL 2			Bioprocess Technology II	
32			Engineering Mechanics II	GÜ 2	Bioprocess Technology I	HÜ 2	Genetics and Molecular Biology	PBL 1			Bioprocess Technology II	VL 2
33			Engineering Mechanics II	HÜ 2	Bioprocess Technology I - Fundamental Practical Course	PR 2	Lab Course in Microbiology and Biochemistry	PR 3			Bioprocess Technology II	GÜ 2
34												
35												
36			Biological and Biochemical Fundamentals (part 2)									
37			Fundamental Biological and Biochemical Practical Course	PR 3							Advanced Practical Course in Bioengineering	
38			Introduction to the Biological and Biochemical Practical Course	VL 1							Advanced Practical Course in Bioengineering	PR 2
39												

Linking theory and practice (dual study program, Bachelor's degree) - 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.

