

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

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

Specialisation Bio Engineering

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

