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

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

Legend:
Core Qualification Compulsory | Specialisation Compulsory | Focus Compulsory | Thesis Compulsory
Core Qualification Elective Compulsory | Specialisation Elective Compulsory | Focus Elective Compulsory | Interdisciplinary complement

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

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.