

Course of Study Chemical and Bioprocess Engineering (Study Cohort w21)

Sample course plan B Master Chemical and Bioprocess Engineering (IMPCBE)

Specialisation Bioprocess Engineering		Semester 2		Semester 3		Semester 4	
Form	Hrs/wk	Form	Hrs/wk	Form	Hrs/wk	Form	Hrs/wk
1	Applied Thermodynamics: Thermodynamic Properties for Industrial Applications	Bioprocess and Biosystems Engineering		Process Design Project		Master Thesis	
2	Applied Thermodynamics: Thermodynamic Properties for Industrial Applications	Bioreactor Design and Operation	VL 2	Process Design Project	PK 6		
3	Applied Thermodynamics: Thermodynamic Properties for Industrial Applications	Biosystems Engineering	VL 2				
4		Bioreactors and Biosystems Engineering	PBL 1				
5							
6							
7	Separation Technologies for Life Sciences	Heterogeneous Catalysis		Research project IMP Chemical and Bioprocess Engineering			
8	Chromatographic Separation Processes	Analysis and Design of Heterogeneous Catalytic Reactors	VL 2	Research Project IMP Chemical and Bioprocess Engineering	PBL 6		
9	Unit Operations for Bio-Related Systems	Modern Methods in Heterogeneous Catalysis	VL 2				
10	Unit Operations for Bio-Related Systems	Modern Methods in Heterogeneous Catalysis	PR 2				
11							
12							
13	Biocatalysis	Technical Microbiology		Industrial Bioprocess Engineering			
14	Technical Biocatalysis	Applied Molecular Biology	VL 2	Biotechnical Processes	PBL 2		
15	Biocatalysis and Enzyme Technology	Technical Microbiology	VL 2	Development of bioprocess engineering processes in industrial practice	SE 2		
16		Technical Microbiology	HÜ 1				
17							
18							
19	Process Systems Engineering and Transport Processes	Cell and Tissue Engineering		Bioresources and Biorefineries			
20	Heat & Mass Transfer in Process Engineering	Fundamentals of Cell and Tissue Engineering	VL 2	Bioresource Management	VL 2		
21	Multiphase Flows	Bioprocess Engineering for Medical Applications	VL 2	Bioresource Management	GÜ 1		
22	Process Systems Engineering			Biorefinery Technology	VL 2		
23				Biorefinery Technologie	GÜ 1		
24							
25	Particle Technology for International Master Programs						
26	Particle Technology for IMP		VL 2				
27	Practicle Course Particle Technology for IMP		PR 3				
28	Excercise Particle Technology for International Master Program		HÜ 1				
29							
30							
Business & Management (from catalogue) - 6LP							
Non-technical Courses for Master (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.

