

Course of Study Chemical and Bioprocess Engineering (Study Cohort w20)

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

Specialisation		General Process Engineering		Semester 2		Semester 3		Semester 4	
Form	Hrs/wk	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	VL	4	Bioreactor Design and Operation	VL	2	Process Design Project	PK	6
3	Applied Thermodynamics: Thermodynamic Properties for Industrial Applications	UE	2	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	VL	2	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	VL	2	Modern Methods in Heterogeneous Catalysis	VL	2			
10	Unit Operations for Bio-Related Systems	PBL	2	Modern Methods in Heterogeneous Catalysis	PR	2			
11									
12									
13	Biocatalysis		Technical Microbiology		Industrial Process Automation				
14	Technical Biocatalysis	VL	2	Applied Molecular Biology	VL	2	Industrial Process Automation	VL	2
15	Biocatalysis and Enzyme Technology	VL	2	Technical Microbiology	VL	2	Industrial Process Automation	UE	2
16				Technical Microbiology	HÜ	1			
17									
18									
19	Process Systems Engineering and Transport Processes		High Pressure Chemical Engineering						
20	Heat & Mass Transfer in Process Engineering	VL	2	Advanced Separation Processes	VL	2			
21	Multiphase Flows	VL	2	Industrial Processes Under High Pressure	VL	2			
22	Process Systems Engineering	VL	2	High pressure plant and vessel design	VL	2			
23									
24									
25	Particle Technology for International Master Programs		Numerical Treatment of Ordinary Differential Equations						
26	Particle Technology for IMP	VL	2	Numerical Treatment of Ordinary Differential Equations	VL	2			
27	Practicle Course Particle Technology for IMP	PR	3	Numerical Treatment of Ordinary Differential Equations	UE	2			
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.

