

# Course of Study Chemical and Bioprocess Engineering (Study Cohort w17)

Sample course plan C Master Chemical and Bioprocess Engineering (IMPCBE)  
Specialisation General Process 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																				
1	<b>Applied Thermodynamics: Thermodynamic Properties for Industrial Applications</b>			<b>Bioprocess and Biosystems Engineering</b>			<b>Process Design Project</b>			<b>Master Thesis</b>																						
2													Bioreactor Design and Operation	VL	2	Process Design Project	PK	6														
3													Bioreactor Design and Operation	PR	1																	
4													Applied Thermodynamics: Thermodynamic Properties for Industrial Applications	VL	4	Biosystems Engineering	VL	2														
5													Applied Thermodynamics: Thermodynamic Properties for Industrial Applications	UE	2	Biosystems Engineering	PBL	1														
6																																
7	<b>Separation Technologies for Life Sciences</b>			<b>Heterogeneous Catalysis</b>			<b>Research project IMP Chemical and Bioprocess Engineering</b>																									
8																Chromatographic Separation Processes	VL	2	Analysis and Design of Heterogeneous Catalytic Reactors	VL	2											
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	<b>Biocatalysis</b>			<b>Technical Microbiology</b>			<b>Industrial Process Automation</b>																									
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	<b>Process Systems Engineering and Transport Processes</b>			<b>High Pressure Chemical Engineering</b>																												
20																						Advanced Separation Processes	VL	2	Industrial Processes Under High Pressure	VL	2					
21																						Heat & Mass Transfer in Process Engineering	VL	2	High Pressure Technique for Apparatus Engineering	VL	2					
22																						Multiphase Flows	VL	2								
23	Process Systems Engineering	VL	2																													
24																																
25	<b>Particle Technology for International Master Programs</b>			<b>Numerical Treatment of Ordinary Differential Equations</b>																												
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																																
29																																
30																																
Business & Management (from catalogue) - 6LP																																
Nontechnical Elective Complementary 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.