

# Course of Study Chemical and Bioprocess Engineering (Study Cohort w18)

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

		Core qualification Compulsory		Specialisation Compulsory		Focus Compulsory		Thesis Compulsory	
Specialisation Chemical Process Engineering		Core qualification Elective Compulsory		Specialisation Elective Compulsory		Focus Elective Compulsory		Interdisciplinary complement	
	Form	Hrs/wk	Semester 2	Form	Hrs/wk	Semester 3	Form	Hrs/wk	Semester 4
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	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	<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	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	<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>		<b>Membrane Technology</b>				
20	Heat & Mass Transfer in Process Engineering	VL	2	Advanced Separation Processes	VL	2	Membrane Technology	VL	2
21	Multiphase Flows	VL	2	Industrial Processes Under High Pressure	VL	2	Membrane Technology	UE	1
22	Process Systems Engineering	VL	2	High Pressure Technique for Apparatus Engineering	VL	2	Membrane Technology	PR	1
23									
24									
25	<b>Particle Technology for International Master Programs</b>								
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									
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.

