

Course of Study Bioprocess Engineering (Study Cohort w21)

Sample course plan A Master Bioprocess Engineering (BVTMS)

Specialisation A - General Bioprocess Engineering

	Core Qualification Compulsory		Specialisation Compulsory		Focus Compulsory		Thesis Compulsory	
	Core Qualification Elective Compulsory		Specialisation Elective Compulsory		Focus Elective Compulsory		Interdisciplinary complement	
1	Transport Processes		Advanced Chemical Reaction Engineering		Process Design Project		Master Thesis	
2	Heat & Mass Transfer in Process Engineering	VL 2	Chemical Reaction Engineering	VL 2	Process Design Project	PK 6		
3	Multiphase Flows	VL 2	Chemical Reaction Engineering	HÜ 2				
4	Reactor Design Using Local Transport Processes	PBL 2	Experimental Course Chemical Engineering	PR 2				
5								
6								
7	Process and Plant Engineering II		Bioprocess and Biosystems Engineering		Bioprocess Engineering Advanced Practical Course			
8	Process and Plant Engineering II	VL 2	Bioreactor Design and Operation	VL 2	Advanced Practical Course in Microbiology	PR 3		
9	Process and Plant Engineering II	HÜ 1	Biosystems Engineering	VL 2	Bioprocess Engineering Advanced Practical Course	PR 3		
10	Process and Plant Engineering II	GÜ 1	Bioreactors and Biosystems Engineering	PBL 1				
11								
12								
13	Separation Technologies for Life Sciences		Technical Microbiology		Particle Technology and Solid Matter Process Technology			
14	Chromatographic Separation Processes	VL 2	Applied Molecular Biology	VL 2	Advanced Particle Technology II	VL 2		
15	Unit Operations for Bio-Related Systems	VL 2	Technical Microbiology	VL 2	Advanced Particle Technology II	PBL 1		
16	Unit Operations for Bio-Related Systems	PBL 2	Technical Microbiology	HÜ 1	Experimental Course Particle Technology	PR 3		
17								
18								
19	Biocatalysis		Cell and Tissue Engineering		Synthesis and Design of Industrial Processes			
20	Technical Biocatalysis	VL 2	Fundamentals of Cell and Tissue Engineering	VL 2	Synthesis and Design of Industrial Facilities	VL 1		
21	Biocatalysis and Enzyme Technology	VL 2	Bioprocess Engineering for Medical Applications	VL 2	Industrial Plant Design and Economics	PBL 3		
22								
23								
24								
25					Study work Bioprocess Engineering			
26					Study Work Bioprocess Engineering	PR 6		
27								
28								
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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.

