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

Sample course plan B Master Chemical and Bioprocess Engineering (IMPCBE) Specialisation Bioprocess 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/v	kSemester 2	Form Hrs/w	kSemester 3	Form Hrs/w	kSemester 4 Form Hrs/w
1 2 3 4 5	Applied Thermodynamics: Thermodynam Properties for Industrial Applications Applied Thermodynamics: Thermodynamic Properties for Industrial Applications Applied Thermodynamics: Thermodynamic Properties for Industrial Applications	VL 4 UE 2	Bioprocess and Biosystems Engineering Bioreactor Design and Operation Bioreactor Design and Operation Biosystems Engineering Biosystems Engineering	VL 2 PR 1 VL 2 PBL 1	Process Design Project Process Design Project	PK 6	Master Thesis
7 8 9 10 11	Separation Technologies for Life Science Chromatographic Separation Processes Unit Operations for Bio-Related Systems Unit Operations for Bio-Related Systems	VL 2 VL 2 PBL 2	Heterogeneous Catalysis Analysis and Design of Heterogeneous Catalytic Reactors Modern Methods in Heterogeneous Catalysis Modern Methods in Heterogeneous Catalysis	VL 2 VL 2 PR 2	Research project IMP Chemical and Bio Engineering Research Project IMP Chemical and Bioprocess Engineering	pprocess PBL 6	
13 14 15 16 17	Biocatalysis Technical Biocatalysis Biocatalysis and Enzyme Technology	VL 2 VL 2	Technical Microbiology Applied Molecular Biology Technical Microbiology Technical Microbiology	VL 2 VL 2 HÜ 1	Industrial Bioprocess Engineering Biotechnical Processes Trends in Industrial Biocatalysis	PBL 2 SE 2	
19 20 21 22 23 24	Process Systems Engineering and Transp Processes Heat & Mass Transfer in Process Engineering Multiphase Flows Process Systems Engineering	VL 2 VL 2 VL 2	Cell and Tissue Engineering Fundamentals of Cell and Tissue Engineering Bioprocess Engineering for Medical Applications	VL 2 VL 2	Bioresources and Biorefineries Bioresource Management Bioresource Management Biorefinery Technology Biorefinery Technologie	VL 2 UE 1 VL 2 UE 1	
25 26 27 28 29 30	Particle Technology for International Mas Programs Particle Technology for IMP Practicle Course Particle Technology for IMP Business & Management (from catalogue) - 6	VL 2 PR 3					

The choice of courses from the catalogue is flexible (depends on the semestral work load), provided the necessary number of required credits is reached.