

Course of Study Chemical and Bioprocess Engineering (Study Cohort w21)

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

| Specialisation Chemical Process Engineering | | Semester 2 | | Semester 3 | | Semester 4 | | | | |
|---|---|------------|--|---|---|------------|----------------------|--|-----|---|
| 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 | GÜ | 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 | GÜ | 2 |
| 16 | | | | Technical Microbiology | HÜ | 1 | | | | |
| 17 | | | | | | | | | | |
| 18 | | | | | | | | | | |
| 19 | Process Systems Engineering and Transport Processes | | High Pressure Chemical Engineering | | Membrane Technology | | | | | |
| 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 | GÜ | 1 |
| 22 | Process Systems Engineering | IV | 2 | High pressure plant and vessel design | VL | 2 | | Membrane Technology | PR | 1 |
| 23 | | | | | | | | | | |
| 24 | | | | | | | | | | |
| 25 | Particle Technology for International Master Programs | | | | | | | | | |
| 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 | | | | | | | | | | |
| 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.

