Course of Study Bioprocess Engineering (Study Cohort w21)

Legend:

Core Qualification Compulsory	Specialisation Compulsory	Focus Compulsory	Thesis Compulsory
Core Qualification Elective Compulsory	Specialisation Elective Compulsory	Focus Elective Compulsory	Interdisciplinary complement

Sample course plan B Bachelor Bioprocess Engineering (BVTBS)

LP					
1	**Mathematics I** Linear Algebra I VL 2 Linear Algebra I GÜ 1 Linear Algebra I HÜ 1 Analysis I VL 2 Analysis I GÜ 1 Analysis I HÜ 1	**Technical Thermodynamics I** Technical Thermodynamics I VL 2 Technical Thermodynamics I HÜ 1 Technical Thermodynamics I GÜ 1	**Basics of Electrical Engineering** Basics of Electrical Engineering VL 3 Basics of Electrical Engineering GÜ 2	**Fundamentals of Fluid Mechanics** Fundamentals of Fluid Mechanics VL 2 Fluid Mechanics for Process Engineering HÜ 2 Fundamentals on Fluid Mechanics GÜ 2	**Heat and Mass Transfer** Heat and Mass Transfer VL 2 Heat and Mass Transfer GÜ 1 Heat and Mass Transfer HÜ 1	**Process and Plant Engineering I** Process and Plant Engineering I VL 2 Process and Plant Engineering I HÜ 1 Process and Plant Engineering I GÜ 1
2						
3						
4						
5						
6						
7		**Mechanics II: Mechanics of Materials** Mechanics II VL 2 Mechanics II GÜ 2 Mechanics II HÜ 2	**Technical Thermodynamics II** Technical Thermodynamics II VL 2 Technical Thermodynamics II HÜ 1 Technical Thermodynamics II GÜ 1	**Phase Equilibria Thermodynamics** Phase Equilibria Thermodynamics VL 2 Phase Equilibria Thermodynamics GÜ 1 Phase Equilibria Thermodynamics HÜ 1	**Thermal Separation Processes** Thermal Separation Processes VL 2 Thermal Separation Processes GÜ 2 Thermal Separation Processes HÜ 1 Separation Processes PR 1	**Particle Technology and Solids Process Engineering** Particle Technology I VL 2 Particle Technology I GÜ 1 Particle Technology I PR 2
8						
9	**General and Inorganic Chemistry** General and Inorganic Chemistry VL 3 Fundamentals in Inorganic Chemistry PR 3 Fundamentals in Inorganic Chemistry GÜ 1					
10						
11						
12						
13		**Biochemistry and Microbiology** Biochemistry VL 2 Biochemistry PBL 1 Microbiology VL 2 Microbiology PBL 1	**Mathematics III** Analysis III VL 2 Analysis III GÜ 1 Analysis III HÜ 1 Differential Equations 1 VL 2 Differential Equations 1 GÜ 1 Differential Equations 1 HÜ 1	**Foundations of Management** Introduction to Management VL 3 Management Tutorial GÜ 2	**Introduction to Control Systems** Introduction to Control Systems VL 2 Introduction to Control Systems GÜ 2	**Bachelor Thesis**
14						
15	**Fundamentals of Process Engineering and Material Engineering** Introduction into Process Engineering/Bioprocess Engineering VL 2 Fundamentals of material engineering VL 2					
16						
17						
18	**Mechanics I (Statics)** Mechanics I VL 2 Mechanics I GÜ 2 Mechanics I HÜ 1	**Mathematics II** Linear Algebra II VL 2 Linear Algebra II GÜ 1 Linear Algebra II HÜ 1 Analysis II VL 2 Analysis II HÜ 1 Analysis II GÜ 1	**Fundamentals in Molecular Biology** Genetics and Molecular Biology VL 2 Genetics and Molecular Biology PBL 1 Lab Course in Microbiology and Biochemistry PR 3	**Bioprocess Engineering - Fundamentals** Bioprocess Engineering - Fundamentals VL 2 Bioprocess Engineering- Fundamentals HÜ 2 Bioprocess Engineering - Fundamental Practical Course PR 2	**Bioprocess Engineering - Advanced** Bioprocess Engineering - Advanced VL 2 Bioprocess Engineering - Advanced GÜ 2	
19						
20						
21						
22						
23						
24	**Measurement Technology for VT/ BVT** Measurement Technology VL 2 Physical Fundamentals of Measurement Technology VL 2 Practical Course Measurement Technology PR 2			**Computer Science for Engineers - Programming Concepts, Data Handling & Communication** Computer Science for Engineers - Programming Concepts, Data Handling & Communication VL 3 Computer Science for Engineers - Programming Concepts, Data Handling & Communication GÜ 2	**Practice of Process Engineering** Practice in Process Engineering PS 2 Lectures for Pratice of Process Engineering SE 1	
25						
26						
27		**Organic Chemistry** Organic Chemistry VL 4 Organic Chemistry PR 3	**Chemical Reaction Engineering (part 1)** Chemical Reaction Engineering VL 2 Chemical Reaction Engineering HÜ 2			
28						
29						
30						
31				**Chemical Reaction Engineering (part 2)** Experimental Course Chemical Engineering PR 2		
32						

Non-technical Courses for Bachelors (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.