Course of Study Bioprocess Engineering (Study Cohort w15)

Sample course plan A Bachelor Bioprocess Engineering (BVTBS)

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/wk	Semester 2	Form	Hrs/wk	Semester 3	Form	Hrs/wk	Semester 4	Form	Hrs/wk	Semester 5	Form	Hrs/wk	Semester 6	Form	Hrs/wk
1	**Engineering Mechanics I**			**Engineering Mechanics II**			**Basics of Electrical Engineering**			**Fundamentals of Fluid Mechanics**			**Heat and Mass Transfer**			**Thermal Separation Processes (part 2)**		
	Engineering Mechanics I	VL	3	Engineering Mechanics II	VL	3	Basics of Electrical Engineering	VL	3	Fundamentals of Fluid Mechanics	VL	2	Heat and Mass Transfer	VL	2	Separation Processes	PR	1
2	Engineering Mechanics I	UE	2	Engineering Mechanics II	UE	2	Basics of Electrical Engineering	UE	2	Fluid Mechanics for Process Engineering	HÜ	2	Heat and Mass Transfer	UE	1	**Chemical Reaction Engineering (part 2)**		
3													Heat and Mass Transfer	HÜ	1	Experimental Course Chemical Engineering	PR	2
4																**Process and Plant Engineering I**		
5																Process and Plant Engineering I	VL	2
6																Process and Plant Engineering I	HÜ	1
7	**Mathematics I**			**Technical Thermodynamics I**			**Technical Thermodynamics II**			**Phase Equilibria Thermodynamics**			**Thermal Separation Processes (part 1)**			Process and Plant Engineering I	UE	1
8	Linear Algebra I	VL	2	Technical Thermodynamics I	VL	2	Technical Thermodynamics II	VL	2	Thermodynamics III	VL	2	Thermal Separation Processes	VL	2	**Particle Technology and Solids Process Engineering**		
9	Linear Algebra I	UE	1	Technical Thermodynamics I	HÜ	1	Technical Thermodynamics II	HÜ	1	Thermodynamics III	UE	1	Thermal Separation Processes	UE	2	Particle Technology I	VL	2
10	Linear Algebra I	HÜ	1	Technical Thermodynamics I	UE	1	Technical Thermodynamics II	UE	1	Thermodynamics III	HÜ	1	Thermal Separation Processes	HÜ	1	Particle Technology I	UE	1
11	Analysis I	VL	2										**Introduction to Control Systems**			Particle Technology I	PR	2
12	Analysis I	UE	1	**Biochemistry and Microbiology**			**Mathematics III**			**Foundations of Management**			Introduction to Control Systems	VL	2			
13	Analysis I	HÜ	1	Biochemistry	VL	2	Analysis III	VL	2	Introduction to Management	VL	3	Introduction to Control Systems	UE	2	**Bachelor Thesis**		
14				Biochemistry	PBL	1	Analysis III	UE	1	Project Entrepreneurship	PBL	2						
15	**General and Inorganic Chemistry**			Microbiology	VL	2	Analysis III	HÜ	1				**Chemical Reaction Engineering (part 1)**					
16	Fundamentals in Inorganic Chemistry	VL	4	Microbiology	PBL	1	Differential Equations 1	VL	2	**Informatics for Process Engineers**			Chemical Reaction Engineering	VL	2			
17	Fundamentals in Inorganic Chemistry	PR	3	**Mathematics II**			Differential Equations 1	UE	1	Numeric and Matlab	PR	2	Chemical Reaction Engineering	HÜ	2			
18				Linear Algebra II	VL	2	Differential Equations 1	HÜ	1	Informatics for Process Engineers	VL	2						
19				Linear Algebra II	UE	1	**Fundamentals in Molecular Biology**			Informatics for Process Engineers	UE	2	**Bioprocess Engineering - Advanced**					
20				Linear Algebra II	HÜ	1	Genetics and Molecular Biology	VL	2				Bioprocess Engineering - Advanced	VL	2			
21	**Fundamentals of Process Engineering**			Analysis II	VL	2	Genetics and Molecular Biology	PBL	1	**Bioprocess Engineering - Fundamentals**			Bioprocess Engineering - Advanced	UE	2			
22	Environmental Technologie	VL	2	Analysis II	HÜ	1	Lab Course in Microbiology and Biochemistry	PR	3	Bioprocess Engineering - Fundamentals	VL	2						
23	Introduction into Process Engineering/Bioprocess Engineering	VL	2	Analysis II	UE	1				Bioprocess Engineering- Fundamentals	HÜ	2						
24																		
25	Fundamentals of Technical Drawing and Materials	VL	1							Bioprocess Engineering -	PR	2						
26	Fundamentals of Technical Drawing and Materials	HÜ	1															
27	**Physics**			**Organic Chemistry**														
28	Physics	VL	2	Organic Chemistry	VL	4												
29	Physics	UE	1	Organic Chemistry	PR	3												

30	Physics-Lab for VT/ BVT/ EUT	PR	2		Fundamental Practical Course
31					
32					

Nontechnical Complementary 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.