Course of Study General Engineering Science (English program, 7 semester) (Study Cohort w16)

Sample course plan A Bachelor General Engineering Science (English program, 7 semester) (GESBS(7))
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/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	Semester 7	Form	Hrs/wk
1	**Chemistry (GES)**			**Fundamentals of Mechanical Engineering Design**			**Technical Thermodynamics II**			**Fundamentals of Fluid Mechanics**			**Introduction to Control Systems**			**Foundations of Management**			**Advanced Internship GES**		
2	Chemistry I	VL	2	Fundamentals of Mechanical Engineering Design	VL	2	Technical Thermodynamics II	VL	2	Fundamentals of Fluid Mechanics	VL	2	Introduction to Control Systems	VL	2	Introduction to Management	VL	3			
3	Chemistry II	VL	2				Technical Thermodynamics II	HÜ	1	Fluid Mechanics for Process Engineering	HÜ	2	Introduction to Control Systems	UE	2	Management Tutorial	HÜ	2			
4	Chemistry I	HÜ	1	Fundamentals of Mechanical Engineering Design	HÜ	2	Technical Thermodynamics II	UE	1												
5	Chemistry II	HÜ	1																		
6																					
7	**Linear Algebra**			**Technical Thermodynamics I**			**Mathematics III**			**Phase Equilibria Thermodynamics**			**Heat and Mass Transfer**			**Thermal Separation Processes (part 2)**					
8	Linear Algebra	VL	4	Technical Thermodynamics I	VL	2	Analysis III	VL	2	Phase Equilibria Thermodynamics	VL	2	Heat and Mass Transfer	VL	2	Separation Processes	PR	1			
9	Linear Algebra	HÜ	2	Technical Thermodynamics I	HÜ	1	Analysis III	UE	1	Phase Equilibria Thermodynamics	UE	1	Heat and Mass Transfer	UE	1	**Chemical Reaction Engineering (part 2)**					
10	Linear Algebra	UE	2	Technical Thermodynamics I	UE	1	Analysis III	HÜ	1	Phase Equilibria Thermodynamics	HÜ	1	Heat and Mass Transfer	HÜ	1	Experimental Course Chemical Engineering	PR	2			
11							Differential Equations 1	VL	2							**Process and Plant Engineering I**					
12							Differential Equations 1	UE	1							Process and Plant Engineering I	VL	2			
13				**Mathematical Analysis**			Differential Equations 1	HÜ	1	**Signals and Systems**			**Thermal Separation Processes (part 1)**			Process and Plant Engineering I	HÜ	1			
14				Mathematical Analysis	VL	4				Signals and Systems	VL	3	Thermal Separation Processes	VL	2	Process and Plant Engineering I	UE	1			
15	**Electrical Engineering I**			Mathematical Analysis	HÜ	2	**Mechanics III (GES)**			Signals and Systems	HÜ	1	Thermal Separation Processes	UE	2	**Particle Technology and Solids Process Engineering**					
16	Electrical Engineering I	VL	3	Mathematical Analysis	UE	2	Mechanics III	HÜ	1				Thermal Separation Processes	HÜ	1	Particle Technology I	VL	2			
17	Electrical Engineering I	UE	2				Mechanics III	UE	2							Particle Technology I	UE	1			
18							Mechanics III	VL	3	**Biochemistry and Microbiology**			**Chemical Reaction Engineering (part 1)**			Particle Technology I	PR	2	**Bachelor Thesis**		
19										Biochemistry	VL	2	Chemical Reaction Engineering	VL	2						
20										Biochemistry	PBL	1	Chemical Reaction Engineering	HÜ	2						
21	**Mechanics I (GES)**			**Electrical Engineering II**			**Computer Engineering**			Microbiology	VL	2	**Bioprocess Engineering - Advanced**								
22	Mechanics I	VL	2	Electrical Engineering II	VL	3	Computer Engineering	VL	3	Microbiology	PBL	1	Bioprocess Engineering - Advanced	VL	2						
23	Mechanics I	HÜ	3	Electrical Engineering II	UE	2	Computer Engineering	UE	1	**Bioprocess Engineering - Fundamentals**			Bioprocess Engineering - Advanced	UE	2						
24										Bioprocess Engineering	VL	2									
25										- Fundamentals											
26																					
27	**Programming in C**			**Mechanics II (GES)**			**Fundamentals of Process Engineering**														
28	Programming in C	VL	1	Mechanics II	VL	2															

	Programming in C PR 1	Mechanics II HÜ 2	Introduction into Process Engineering/Bioprocess Engineering VL 2 Fundamentals of material engineering VL 2	Bioprocess Engineering- Fundamentals HÜ 2 Bioprocess Engineering - Fundamental Practical Course PR 2	
29	**Physics for Engineers (GES)** Physics for Engineers VL 2 Physics for Engineers UE 1				
30			**Physical Chemistry** Physical Chemistry VL 2 Physical Chemistry PR 2		
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.