Course of Study General Engineering Science (German program, 7 semester) (Study Cohort w19)

Sample course plan A Bachelor General Engineering Science (German program, 7 semester) (AIWBS(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

	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**			**Electrical Engineering II: Alternating Current Networks and Basic Devices**			**Technical Thermodynamics II**			**Signals and Systems**			**Introduction to Control Systems**			**Foundations of Management**			**Advanced Internship AIW/ ES**		
2	Chemistry I	VL	2				Technical Thermodynamics II	VL	2	Signals and Systems	VL	3	Introduction to Control Systems	VL	2	Introduction to Management	VL	3	Advanced Internship AIW/ ES:	SE	1
3	Chemistry II	VL	2	Electrical Engineering II: Alternating	VL	3	Technical Thermodynamics II	HÜ	1	Signals and Systems	GÜ	2	Introduction to Control Systems	GÜ	2	Management Tutorial	GÜ	2	Preparation		
4	Chemistry I	HÜ	1	Current Networks and Basic Devices			Technical Thermodynamics II	GÜ	1										Advanced Intenship AIW/ ES: Internship-	SE	1
5	Chemistry II	HÜ	1	Electrical Engineering II: Alternating	GÜ	2													accompanying Seminar		
6				Current Networks and Basic Devices																	
7	**Electrical Engineering I: Direct Current Networks and Electromagnetic Fields**			**Fundamentals of Mechanical Engineering Design**			**Mathematics III**			**Fundamentals of Fluid Mechanics**			**Heat and Mass Transfer**			**Process and Plant Engineering I**					
8	Electrical Engineering I: Direct Current	VL	3	Fundamentals of Mechanical Engineering	VL	2	Analysis III	VL	2	Fundamentals of Fluid Mechanics	VL	2	Heat and Mass Transfer	VL	2	Process and Plant Engineering I	VL	2			
9	Networks and Electromagnetic Fields			Design			Analysis III	GÜ	1	Fluid Mechanics for Process Engineering	HÜ	2	Heat and Mass Transfer	GÜ	1	Process and Plant Engineering I	HÜ	1			
10	Electrical Engineering I: Direct Current	GÜ	2	Fundamentals of Mechanical Engineering	HÜ	2	Analysis III	HÜ	1				Heat and Mass Transfer	HÜ	1	Process and Plant Engineering I	GÜ	1			
11	Networks and Electromagnetic Fields			Design			Differential Equations 1	VL	2												
12							Differential Equations 1	GÜ	1												
13	**Mathematics I**			**Technical Thermodynamics I**			Differential Equations 1	HÜ	1	**Phase Equilibria Thermodynamics**			**Thermal Separation Processes**			**Particle Technology and Solids Process Engineering**					
14	Linear Algebra I	VL	2	Technical Thermodynamics I	VL	2				Phase Equilibria Thermodynamics	VL	2	Thermal Separation Processes	VL	2						
15	Linear Algebra I	GÜ	1	Technical Thermodynamics I	HÜ	1	**Mechanics III (Dynamics)**			Phase Equilibria Thermodynamics	GÜ	1	Thermal Separation Processes	GÜ	1	Particle Technology I	VL	2			
16	Linear Algebra I	HÜ	1	Technical Thermodynamics I	GÜ	1	Mechanics III	VL	3	Phase Equilibria Thermodynamics	HÜ	1	Thermal Separation Processes	HÜ	1	Particle Technology I	GÜ	1			
17	Analysis I	VL	2				Mechanics III	GÜ	2				Separation Processes	PR	1	Particle Technology I	PR	2			
18	Analysis I	GÜ	1				Mechanics III	HÜ	1												
19	Analysis I	HÜ	1	**Mechanics II: Mechanics of Materials**						**Biochemistry and Microbiology**			**Chemical Reaction Engineering (part 1)**			**Chemical Reaction Engineering (part 2)**			**Bachelor Thesis**		
20				Mechanics II	VL	2				Biochemistry	VL	2	Chemical Reaction Engineering	VL	2	Experimental Course Chemical	PR	2			
21	**Mechanics I (Statics)**			Mechanics II	GÜ	2	**Computer Engineering**			Biochemistry	PBL	1	Chemical Reaction Engineering	HÜ	2	Engineering					
	Mechanics I	VL	2	Mechanics II	HÜ	2	Computer Engineering	VL	3	Microbiology	VL	2				**Environmental Technology (part 2)**					
22	Mechanics I	GÜ	2				Computer Engineering	GÜ	1	Microbiology	PBL	1				Practical Exercise Environmental	PR	1			
23	Mechanics I	HÜ	1													Technology					
24													**Bioprocess Engineering - Advanced**								
25				**Mathematics II**									Bioprocess Engineering - Advanced	VL	2						
26				Linear Algebra II	VL	2				**Bioprocess Engineering - Fundamentals**			Bioprocess Engineering - Advanced	GÜ	2						
27	**Programming in C**			Linear Algebra II	GÜ	1				Bioprocess Engineering - Fundamentals	VL	2									
28	Programming in C	VL	1	Linear Algebra II	HÜ	1	**Fundamentals of Process Engineering and Material Engineering**			Bioprocess Engineering- Fundamentals	HÜ	2									
	Programming in C	PR	2	Analysis II	VL	2	Introduction into Process	VL	2	Bioprocess Engineering - Fundamental	PR	2									
29	**Physics for Engineers (AIW)**			Analysis II	HÜ	1	Engineering/Bioprocess Engineering			Practical Course			**Environmental Technology (part 1)**								
30	Physics for Engineers	VL	2	Analysis II	GÜ	1	Fundamentals of material engineering	VL	2				Environmental Technologie	VL	2						
31	Physics for Engineers	GÜ	1																		
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.