

Course of Study General Engineering Science (German program) (Study Cohort w15)

Sample course plan - Bachelor General Engineering Science (German program) (AIWBS)
Specialisation Bioprocess Engineering

Legend:

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

LP	Semester 1	FormHrs/wk	Semester 2	FormHrs/wk	Semester 3	FormHrs/wk	Semester 4	FormHrs/wk	Semester 5	FormHrs/wk	Semester 6	FormHrs/wk
1	Physics for Engineers (part 1)		Electrical Engineering II: Alternating Current Networks and Basic Devices		Technical Thermodynamics II		Foundations of Management		Introduction to Control Systems		Thermal Separation Processes (part 2)	
	Physics for Engineers	VL 2	Electrical Engineering II: Alternating Current Networks and Basic Devices	VL 3	Technical Thermodynamics II	VL 2	Introduction to Management	VL 4	Introduction to Control Systems	VL 2	Separation Processes	PR 1
2	Physics for Engineers	UE 1	Electrical Engineering II: Alternating Current Networks and Basic Devices	UE 2	Technical Thermodynamics II	HÜ 1	Project Entrepreneurship	POL 2	Introduction to Control Systems	UE 2	Chemical Reaction Engineering (part 2)	
3			Electrical Engineering II: Alternating Current Networks and Basic Devices	HÜ 1							Experimental Course Chemical Engineering	PR 2
4											Process and Plant Engineering I	
5	Chemistry										Process and Plant Engineering I	VL 2
6	Chemistry I	VL 2									Process and Plant Engineering I	HÜ 1
7	Chemistry II	VL 2									Process and Plant Engineering I	UE 1
8	Chemistry I	HÜ 1	Fundamentals of Mechanical Engineering Design		Computer Engineering		Fundamentals of Fluid Mechanics		Heat and Mass Transfer			
9	Chemistry II	HÜ 1	Fundamentals of Mechanical Engineering Design	VL 2	Computer Engineering	VL 3	Fundamentals of Fluid Mechanics	VL 2	Heat and Mass Transfer	VL 2		
10			Fundamentals of Mechanical Engineering Design	UE 1	Computer Engineering	UE 1	Exercises in Fluid Mechanics for Process Engineering	HÜ 1	Heat and Mass Transfer	UE 1		
11	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields										Particle Technology and Solids Process Engineering	
12	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	VL 3									Particle Technology I	VL 2
13	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	UE 2	Technical Thermodynamics I		Mathematics III		Phase Equilibria Thermodynamics		Thermal Separation Processes (part 1)		Particle Technology I	UE 1
14	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	HÜ 1	Technical Thermodynamics I	VL 2	Analysis III	VL 2	Thermodynamics III	VL 2	Thermal Separation Processes	VL 3	Particle Technology I	PR 2
15			Technical Thermodynamics I	HÜ 1	Analysis III	UE 1	Thermodynamics III	UE 1	Thermal Separation Processes	UE 2		
16			Technical Thermodynamics I	UE 1	Analysis III	HÜ 1	Thermodynamics III	HÜ 1	Thermal Separation Processes	HÜ 1		
17	Mathematics I				Differential Equations 1	VL 2					Bachelor Thesis	
18	Linear Algebra I	VL 2			Differential Equations 1	UE 1						
19	Linear Algebra I	UE 1	Mechanics II: Mechanics of Materials		Differential Equations 1	HÜ 1						
20	Linear Algebra I	HÜ 1	Mechanics II	VL 2			Signals and Systems		Chemical Reaction Engineering (part 1)			
21	Analysis I	VL 2	Mechanics II	UE 2			Signals and Systems	VL 3	Chemical Reaction Engineering	VL 2		
22	Analysis I	UE 1	Mechanics II	HÜ 2	Mechanics III (Hydrostatics, Kinematics, Kinetics I)		Signals and Systems	HÜ 1	Chemical Reaction Engineering	HÜ 2		
23	Analysis I	HÜ 1			Mechanics III	VL 3						
24					Mechanics III	UE 2			Bioprocess Engineering - Advanced			
25	Mechanics I (Statics)		Mathematics II		Mechanics III	HÜ 1			Bioprocess Engineering - Advanced	VL 2		
26	Mechanics I	VL 2	Linear Algebra II	VL 2			Biochemistry and Microbiology		Bioprocess Engineering - Advanced	UE 2		
27	Mechanics I	UE 2	Linear Algebra II	UE 1			Biochemistry	VL 2				
28	Mechanics I	HÜ 1	Linear Algebra II	HÜ 1	Fundamentals of Process Engineering		Biochemistry	POL 1				
29			Analysis II	VL 2	Environmental Technologie	VL 2	Microbiology	VL 2				
30			Analysis II	HÜ 1	Introduction into Process Engineering/Bioprocess Engineering	VL 2	Microbiology	POL 1				
31			Analysis II	UE 1	Fundamentals of Technical Drawing and Materials	VL 1						
32					Fundamentals of Technical Drawing and Materials	HÜ 1	Bioprocess Engineering - Fundamentals					
33			Programming in C				Bioprocess Engineering - Fundamentals	VL 2				
							Bioprocess Engineering - Fundamentals	HÜ 2				

34	Programming in C VL 1 Programming in C PR 1	Fundamentals Bioprocess Engineering - PR 2 Fundamental Practical Course
35	Physics for Engineers (part 2)	
36	Physics-Lab for ET/ AIW/ GES PR 1	

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.