Course of Study General Engineering Science (German program, 7 semester) (Study Cohort w22)

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 - Bachelor General Engineering Science (German program, 7 semester) (AIWBS(7))
Specialisation Chemical and Bioengineering

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	Semester 7	FormHrs/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+II	VL 4	Electrical Engineering II: Alternating Current Networks and Basic Devices	VL 3	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: Preparation	SE 1
3	Chemistry I+II	HÜ 2	Electrical Engineering II: Alternating Current Networks and Basic Devices	GÜ 2	Technical Thermodynamics II	HÜ 1	Signals and Systems	GÜ 2	Introduction to Control Systems	GÜ 2	Management Tutorial	GÜ 2	Advanced Intenship AIW/ ES: Internship-accompanying Seminar	SE 1
4					Technical Thermodynamics II	GÜ 1								
5														
6														
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 Networks and Electromagnetic Fields	VL 3	Fundamentals of Mechanical Engineering Design	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					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 Networks and Electromagnetic Fields	GÜ 2	Fundamentals of Mechanical Engineering Design	HÜ 2	Analysis III	HÜ 1	Fundamentals on Fluid Mechanics	GÜ 2	Heat and Mass Transfer	HÜ 1	Process and Plant Engineering I	GÜ 1		
11					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	Mathematics I	VL 4	Technical Thermodynamics I	VL 2			Phase Equilibria Thermodynamics	VL 2	Thermal Separation Processes	VL 2	Particle Technology I	VL 2		
15	Mathematics I	HÜ 2	Technical Thermodynamics I	HÜ 1	**Engineering Mechanics III (Dynamics)**		Phase Equilibria Thermodynamics	GÜ 1	Thermal Separation Processes	GÜ 2	Particle Technology I	GÜ 1		
16	Mathematics I	GÜ 2	Technical Thermodynamics I	GÜ 1	Engineering Mechanics III	VL 3	Phase Equilibria Thermodynamics	HÜ 1	Thermal Separation Processes	HÜ 1	Particle Technology I	PR 2		
17					Engineering Mechanics III	GÜ 2			Separation Processes	PR 1				
18					Engineering Mechanics III	HÜ 1								
19			**Mathematics II**				**Fundamentals in Molecular Biology**		**Chemical Reaction Engineering (part 1)**		**Chemical Reaction Engineering (part 2)**		**Bachelor Thesis**	
20			Mathematics II	VL 4			Genetics and Molecular Biology	VL 2	Chemical Reaction Engineering	VL 2	Experimental Course Chemical Engineering	PR 2		
21	**Computer Science for Engineers - Introduction and Overview**		Mathematics II	HÜ 2	**Measurement Technology for Chemical and Bioprocess Engineering**		Genetics and Molecular Biology	PBL 1	Chemical Reaction Engineering	HÜ 2				
22	Computer Science for Engineers - Introduction and Overview	VL 3	Mathematics II	GÜ 2	Measurement Technology	VL 2	Lab Course in Microbiology and Biochemistry	PR 3	**Material Engineering**					
23					Physical Fundamentals of Measurement Technology	VL 2			Material Engineering	VL 2				
24	Computer Science for Engineers - Introduction and Overview	GÜ 2			Practical Course Measurement Technology	PR 2	**Biological and Biochemical Fundamentals (part 2)**		**Bioprocess Technology I**					
25							Fundamental Biological and Biochemical Practical Course	PR 3	Bioprocess Technology I	VL 2				
26							Introduction to the Biological and Biochemical Practical Course	VL 1	Bioprocess Technology I	HÜ 2				
27	**Engineering Mechanics I (Stereostatics)**		**Engineering Mechanics II (Elastostatics)**		**Introduction to Chemical and Bioengineering**				Bioprocess Technology I - Fundamental Practical Course	PR 2				
28	Engineering Mechanics I	VL 2	Engineering Mechanics II	VL 2	Introduction to Chemical and Bioengineering	VL 2								
29	Engineering Mechanics I	GÜ 2	Engineering Mechanics II	GÜ 2										
30	Engineering Mechanics I	HÜ 1	Engineering Mechanics II	HÜ 2	**Biological and Biochemical Fundamentals (part 1)**									
31					Biological and Biochemical Fundamentals	VL 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.