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

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 A Bachelor General Engineering Science (German program, 7 semester) (AIWBS(7))
Specialisation Bioprocess Engineering

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