Course of Study General Engineering Science (German program, 7 semester) (Study Cohort w20)

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 Energy and Enviromental Engineering

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**		**Particle Technology and Solids Process Engineering**			
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	Particle Technology I	VL 2		
9					Analysis III	GÜ 1			Heat and Mass Transfer	GÜ 1	Particle Technology I	GÜ 1		
10	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	GÜ 2	Fundamentals of Mechanical Engineering Design	HÜ 2	Analysis III	HÜ 1	Fluid Mechanics for Process Engineering	HÜ 2	Heat and Mass Transfer	HÜ 1	Particle Technology I	PR 2		
11					Differential Equations 1	VL 2								
12					Differential Equations 1	GÜ 1								
13	**Mathematics I**		**Technical Thermodynamics I**		Differential Equations 1	HÜ 1	**Electrical Machines and Actuators**		**Thermal Separation Processes**		**Environmental Technology (part 2)**			
	Linear Algebra I	VL 2	Technical Thermodynamics I	VL 2			Electrical Machines and Actuators	VL 3	Thermal Separation Processes	VL 2	Practical Exercise Environmental Technology	PR 1		
14	Linear Algebra I	GÜ 1	Technical Thermodynamics I	HÜ 1	**Mechanics III (Dynamics)**		Electrical Machines and Actuators	HÜ 2	Thermal Separation Processes	GÜ 2				
15	Linear Algebra I	HÜ 1	Technical Thermodynamics I	GÜ 1	Mechanics III	VL 3			Thermal Separation Processes	HÜ 1				
16	Analysis I	VL 2			Mechanics III	GÜ 2			Separation Processes	PR 1				
17	Analysis I	GÜ 1			Mechanics III	HÜ 1								
18	Analysis I	HÜ 1												
19			**Mechanics II: Mechanics of Materials**				**Renewables Energy Systems**		**Computational Fluid Dynamics I**				**Bachelor Thesis**	
20			Mechanics II	VL 2			Renewable Energy	VL 2	Computational Fluid Dynamics I	VL 2				
21	**Mechanics I (Statics)**		Mechanics II	GÜ 2	**Mechanical Engineering: Design (part 1)**		Energy Systems and Energy Industry	VL 2	Computational Fluid Dynamics I	HÜ 2				
22	Mechanics I	VL 2	Mechanics II	HÜ 2	Embodiment Design and 3D-CAD	VL 2	Power Industry	VL 1						
23	Mechanics I	GÜ 2			Mechanical Design Project I	PBL 3	Renewable Energy	GÜ 1						
24	Mechanics I	HÜ 1												
25			**Mathematics II**		**Computer Engineering**		**Mechanical Engineering: Design (part 2)**		**Measurement Technology for Mechanical Engineers**					
26			Linear Algebra II	VL 2	Computer Engineering	VL 3	Team Project Design Methodology	PBL 2	Measurement Technology for Mechanical Engineering	VL 2				
27	**Programming in C**		Linear Algebra II	GÜ 1	Computer Engineering	GÜ 1	Mechanical Design Project II	PBL 3	Measurement Technology for Mechanical Engineering	HÜ 1				
28	Programming in C	VL 1	Linear Algebra II	HÜ 1					Practical Course: Measurement and Control Systems	PR 2				
29	Programming in C	PR 1	Analysis II	VL 2			**Fundamentals of Materials Science (part 2)**							
30	**Physics for Engineers (AIW)**		Analysis II	HÜ 1			Fundamentals of Materials Science II	VL 2	**Environmental Technology**					
31	Physics for Engineers	VL 2	Analysis II	GÜ 1					Environmental Assessment	VL 2				
32	Physics for Engineers	GÜ 1			**Fundamentals of Materials Science (part 1)**				Environmental Assessment	GÜ 1				
33					Fundamentals of Materials Science I	VL 2								
34					Physical and Chemical Basics of Materials Science	VL 2			**Environmental Technology (part 1)**					
35									Environmental Technologie	VL 2				

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.