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

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

Legend:

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

LP	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/ GES**		
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			
3	Chemistry I+II	HÜ	2	Electrical Engineering II: Alternating Current Networks and Basic Devices	UE	2	Technical Thermodynamics II	HÜ	1	Signals and Systems	UE	2	Introduction to Control Systems	UE	2	Management Tutorial	UE	2			
4							Technical Thermodynamics II	UE	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	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	UE	2	Fundamentals of Mechanical Engineering Design	HÜ	2	Analysis III	UE	1	Fluid Mechanics for Process Engineering	HÜ	2	Heat and Mass Transfer	UE	1	Particle Technology I	UE	1			
10							Analysis III	HÜ	1				Heat and Mass Transfer	HÜ	1	Particle Technology I	PR	2			
11							Differential Equations 1	VL	2												
12							Differential Equations 1	UE	1												
13	**Mathematics I**			**Technical Thermodynamics I**			Differential Equations 1	HÜ	1	**Electrical Machines and Actuators**			**Thermal Separation Processes**			**Environmental Technology**					
14	Linear Algebra I	VL	2	Technical Thermodynamics I	VL	2	**Mechanics III (Dynamics)**			Electrical Machines and Actuators	VL	3	Thermal Separation Processes	VL	2	Environmental Assessment	VL	2			
15	Linear Algebra I	UE	1	Technical Thermodynamics I	HÜ	1	Mechanics III	VL	3	Electrical Machines and Actuators	HÜ	2	Thermal Separation Processes	UE	2	Environmental Assessment	UE	1			
	Linear Algebra I	HÜ	1	Technical Thermodynamics I	UE	1	Mechanics III	UE	2				Thermal Separation Processes	HÜ	1	**Environmental Technology (part 2)**					
16	Analysis I	VL	2				Mechanics III	HÜ	1				Separation Processes	PR	1	Practical Exercise Environmental Technology	PR	1			
	Analysis I	UE	1																		
	Analysis I	HÜ	1																		
17																					
18																					
19				**Mechanics II: Mechanics of Materials**						**Renewables and Energy Systems**			**Computational Fluid Dynamics I**						**Bachelor Thesis**		
20																					
21	**Mechanics I (Statics)**						**Mechanical Engineering:**														
22				Mechanics II	VL	2				Renewable Energy	VL	2	Computational Fluid	VL	2						

23	Mechanics I VL 2 Mechanics I UE 2 Mechanics I HÜ 1	Mechanics II UE 2 Mechanics II HÜ 2	**Design (part 1)** Embodiment Design and 3D-CAD VL 2 Mechanical Design Project I PBL 3	Energy Systems and Energy Industry VL 2 Power Industry VL 1 Renewable Energy UE 1	Dynamics I Computational Fluid Dynamics I HÜ 2	
24			**Computer Engineering** Computer Engineering VL 3 Computer Engineering UE 1			
25		**Mathematics II** Linear Algebra II VL 2 Linear Algebra II UE 1 Linear Algebra II HÜ 1		**Mechanical Engineering: Design (part 2)** Team Project Design Methodology PBL 2 Mechanical Design Project II PBL 3	**Measurement Technology for Mechanical Engineers** Measurement Technology for Mechanical Engineering VL 2 Measurement Technology for Mechanical Engineering HÜ 1 Practical Course: Measurement and Control Systems PR 2	
26						
27	**Programming in C** Programming in C VL 1 Programming in C PR 1					
28		Analysis II VL 2 Analysis II HÜ 1 Analysis II UE 1		**Fundamentals of Materials Science (part 2)** Fundamentals of Materials Science II VL 2		
29	**Physics for Engineers (AIW)** Physics for Engineers VL 2 Physics for Engineers UE 1					
30			**Fundamentals of Materials Science (part 1)** Fundamentals of Materials Science I VL 2 Physical and Chemical Basics of Materials Science VL 2			
31					**Environmental Technology (part 1)** Environmental Technologie VL 2	
32						
33						

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.