

Course of Study Green Technologies: Energy, Water, Climate (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 S Bachelor Green Technologies: Energy, Water, Climate (GTBS)

Specialisation Energy Systems / Renewable Energies

Year	Course	Credits	Category	Course	Credits	Category	Course	Credits	Category	Course	Credits	Category						
1	Mathematics I			Technical Thermodynamics I			Basics of Electrical Engineering			Fundamentals of Fluid Mechanics			Heat and Mass Transfer			System Integration Renewable Energies (part 2)		
2	Mathematics I	VL 4	Core Qualification Compulsory	Technical Thermodynamics I	VL 2	Specialisation Compulsory	Basics of Electrical Engineering	VL 3	Core Qualification Compulsory	Fundamentals of Fluid Mechanics	VL 2	Specialisation Compulsory	Heat and Mass Transfer	VL 2	Focus Compulsory	System Integration Renewable Energies II	VL 2	Thesis Compulsory
3	Mathematics I	HÜ 2	Core Qualification Elective Compulsory	Technical Thermodynamics I	HÜ 1	Specialisation Elective Compulsory	Basics of Electrical Engineering	GÜ 2	Focus Elective Compulsory	Fluid Mechanics for Process Engineering	HÜ 2	Interdisciplinary complement	Heat and Mass Transfer	GÜ 2	Interdisciplinary complement	System Integration Renewable Energies II	GÜ 1	Interdisciplinary complement
4	Mathematics I	GÜ 2	Interdisciplinary complement	Technical Thermodynamics I	GÜ 1	Interdisciplinary complement				Fundamentals on Fluid Mechanics	GÜ 2	Interdisciplinary complement	Heat and Mass Transfer	HÜ 1	Interdisciplinary complement			
5																		
6																		
7				Mathematics II			Technical Thermodynamics II			Sanitary Engineering I			Introduction to Control Systems					
8				Mathematics II	VL 4	Core Qualification Compulsory	Technical Thermodynamics II	VL 2	Specialisation Compulsory	Wastewater Disposal	VL 2	Focus Compulsory	Introduction to Control Systems	VL 2	Focus Compulsory			
9				Mathematics II	HÜ 2	Core Qualification Elective Compulsory	Technical Thermodynamics II	HÜ 1	Specialisation Elective Compulsory	Wastewater Disposal	HÜ 1	Interdisciplinary complement	Introduction to Control Systems	GÜ 2	Interdisciplinary complement			
10				Mathematics II	GÜ 2	Interdisciplinary complement	Technical Thermodynamics II	GÜ 1	Interdisciplinary complement	Drinking Water Supply	VL 2	Focus Elective Compulsory						
11	General and Inorganic Chemistry									Drinking Water Supply	HÜ 1	Interdisciplinary complement						
12	General and Inorganic Chemistry	VL 3	Core Qualification Compulsory															
13	Fundamentals in Inorganic Chemistry	PR 3	Interdisciplinary complement															
14	Fundamentals in Inorganic Chemistry	GÜ 1	Interdisciplinary complement															
15							Mathematics III			Conventional Energy Systems and Energy Industry			Economic and environmental project assessment					
16	Computer Science for Engineers - Introduction and Overview			Organic Chemistry			Analysis III	VL 2	Specialisation Compulsory	Power Industry	VL 1	Focus Compulsory	Basics of Environmental Project Assessment	VL 2	Focus Compulsory			
17	Computer Science for Engineers - Introduction and Overview	VL 3	Core Qualification Compulsory	Organic Chemistry	VL 4	Core Qualification Compulsory	Analysis III	GÜ 1	Interdisciplinary complement	Energy markets and energy trading	VL 2	Focus Elective Compulsory	Case studies economic and environmental project assessment	GÜ 1	Interdisciplinary complement			
18	Computer Science for Engineers - Introduction and Overview	PR 3	Interdisciplinary complement	Organic Chemistry	PR 3	Interdisciplinary complement	Differential Equations 1	VL 2	Focus Elective Compulsory	Fossil Energy Systems	VL 2	Focus Elective Compulsory	Basics of economic project assessment	VL 2	Focus Elective Compulsory			
19	Computer Science for Engineers - Introduction and Overview	GÜ 2	Interdisciplinary complement				Differential Equations 1	GÜ 1	Interdisciplinary complement	Fuels I	VL 1	Focus Elective Compulsory						
20							Differential Equations 1	HÜ 1	Interdisciplinary complement									
21										Renewable Energies			Electrical Power Systems I: Introduction to Electrical Power Systems					
22	Green Technologies I			Engineering Mechanics II (Elastostatics)						Renewable Energies I	VL 2	Focus Compulsory	Electrical Power Systems I: Introduction to Electrical Power Systems	VL 3	Focus Compulsory			
23	Meteorology and Climate Systems - Introduction	VL 2	Core Qualification Compulsory	Engineering Mechanics II	VL 2	Specialisation Compulsory	Measurement Technology for Chemical and Bioprocess Engineering	VL 2	Core Qualification Compulsory	Renewable Energies II	VL 2	Focus Compulsory	Electrical Power Systems I: Introduction to Electrical Power Systems	GÜ 2	Interdisciplinary complement			
24	Introduction Green Technologies	SE 2	Focus Compulsory	Engineering Mechanics II	GÜ 2	Interdisciplinary complement	Physical Fundamentals of Measurement Technology	VL 2	Focus Elective Compulsory	Renewable Energies I	HÜ 1	Interdisciplinary complement						
25	Meteorology and Climate Systems - Introduction	GÜ 2	Interdisciplinary complement	Engineering Mechanics II	HÜ 2	Interdisciplinary complement	Practical Course Measurement Technology	PR 2	Interdisciplinary complement	Fuels II	VL 1	Focus Elective Compulsory						
26													Green Technologies III					
27													Scientific Work and Writing	SE 2	Focus Compulsory			
28	Engineering Mechanics I (Stereostatics)									Green Technologies II (part 1)			Study Work Green Technologies	PS 2	Interdisciplinary complement			
29	Engineering Mechanics I	VL 2	Core Qualification Compulsory				Green Technologies II (part 1)			Environmental Technologie	VL 2	Focus Compulsory						
30	Engineering Mechanics I	GÜ 2	Interdisciplinary complement				Pollutant analysis	VL 2	Focus Compulsory									
31	Engineering Mechanics I	HÜ 1	Interdisciplinary complement							Computer Science for Engineers - Programming Concepts, Data Handling & Communication								
32										Computer Science for Engineers - Programming Concepts, Data Handling & Communication	VL 3	Core Qualification Compulsory						
33										Computer Science for Engineers - Programming Concepts, Data Handling & Communication	GÜ 2	Interdisciplinary complement						
													System Integration Renewable Energies (part 1)					
													System Integration Renewable Energies I	VL 2	Focus Compulsory			
													System Integration Renewable Energies I	GÜ 1	Interdisciplinary complement			

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.

