

# Course of Study Green Technologies: Energy, Water, Climate (Study Cohort w25)

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) Dual study program

Specialisation Energy Systems / Renewable Energies							
1	<b>Mathematics I</b>		<b>Technical Thermodynamics I</b>	<b>Basics of Electrical Engineering</b>	<b>Fundamentals of Fluid Mechanics</b>	<b>Heat and Mass Transfer</b>	<b>System Integration Renewable Energies (part 2)</b>
2	Mathematics I VL 4		Technical Thermodynamics I VL 2	Basics of Electrical Engineering VL 3	Fundamentals of Fluid Mechanics VL 2	Heat and Mass Transfer VL 2	System Integration Renewable Energies II VL 2
3	Mathematics I HÜ 2		Technical Thermodynamics I HÜ 1	Basics of Electrical Engineering GÜ 2	Fluid Mechanics for Process Engineering HÜ 2	Heat and Mass Transfer GÜ 2	System Integration Renewable Energies II GÜ 1
4	Mathematics I GÜ 2		Technical Thermodynamics I GÜ 2		Fundamentals on Fluid Mechanics GÜ 2	Heat and Mass Transfer HÜ 1	
5							
6							
7			<b>Mathematics II</b>	<b>Technical Thermodynamics II</b>	<b>Sanitary Engineering I</b>	<b>Introduction to Control Systems</b>	<b>Climate change impact &amp; mitigation</b>
8			Mathematics II VL 4	Technical Thermodynamics II VL 2	Wastewater Treatment VL 2	Introduction to Control Systems VL 2	Technical measures to mitigate greenhouse gas emissions VL 2
9	<b>General and Inorganic Chemistry</b>		Mathematics II HÜ 2	Technical Thermodynamics II HÜ 1	Wastewater Treatment HÜ 1	Introduction to Control Systems GÜ 2	Technical measures to mitigate greenhouse gas emissions GÜ 2
10	General and Inorganic Chemistry VL 3		Mathematics II GÜ 2	Technical Thermodynamics II GÜ 2	Drinking Water Supply VL 2		Basics of climate change and its effects VL 2
11	Fundamentals in Inorganic Chemistry PR 3				Drinking Water Supply HÜ 1		
12	Fundamentals in Inorganic Chemistry GÜ 1						
13							
14				<b>Mathematics III</b>	<b>Conventional Energy Systems and Energy Industry</b>	<b>Practical module 5 (dual study program, Bachelor's degree)</b>	
15	<b>Computer Science for Engineers - Introduction and Overview</b>		<b>Organic Chemistry</b>	Analysis III VL 2	Power Industry VL 1	Practical term 5 0	
16	Computer Science for Engineers - Introduction and Overview VL 3		Organic Chemistry VL 2	Analysis III GÜ 1	Energy markets and energy trading VL 2		
17	Computer Science for Engineers - Introduction and Overview PR 2		Organic Chemistry PR 2	Analysis III HÜ 1	Fossil Energy Systems VL 2		
18	Computer Science for Engineers - Introduction and Overview GÜ 2		Organic Chemistry GÜ 2	Differential Equations 1 VL 2	Fuels I VL 1		
19				Differential Equations 1 GÜ 1			
20				Differential Equations 1 HÜ 1	<b>Renewable Energies</b>	<b>Economic and environmental project assessment</b>	
21	<b>Green Technologies I</b>		<b>Practical module 2 (dual study program, Bachelor's degree)</b>	<b>Measurement Technology for Chemical and Bioprocess Engineering</b>	Renewable Energies I VL 2	Basics of Environmental Project Assessment VL 2	
22	Meteorology and Climate Systems - Introduction VL 2		Practical term 2 0	Measurement Technology VL 2	Renewable Energies II VL 2	Case studies economic and environmental project assessment GÜ 1	
23	Introduction Green Technologies SE 2			Physical Fundamentals of Measurement Technology VL 2	Renewable Energies I HÜ 1	Basics of economic project assessment VL 2	
24	Meteorology and Climate Systems - Introduction GÜ 2			Practical Course Measurement Technology PR 2	Fuels II VL 1		
25							
26					<b>Practical module 4 (dual study program, Bachelor's degree)</b>	<b>Electrical Power Systems I: Introduction to Electrical Power Systems</b>	
27	<b>Practical module 1 (dual study program, Bachelor's degree)</b>		<b>Engineering Mechanics II (Elastostatics)</b>	<b>Green Technologies II (part 1)</b>	Practical term 4 0	Electrical Power Systems I: Introduction to Electrical Power Systems VL 3	
28	Practical term 1 0		Engineering Mechanics II VL 2	Environmental Technologie VL 2		Electrical Power Systems I: Introduction to Electrical Power Systems GÜ 2	
29			Engineering Mechanics II GÜ 2	Pollutant analysis VL 2			
30			Engineering Mechanics II HÜ 2				
31					<b>Green Technologies II (part 2)</b>	<b>Green Technologies III</b>	
32					Practical Exercise Environmental Technology PR 1	Scientific Work and Writing SE 2	
33	<b>Engineering Mechanics I (Stereostatics)</b>			<b>Practical module 3 (dual study program, Bachelor's degree)</b>	<b>Computer Science for Engineers - Programming Concepts, Data Handling &amp; Communication</b>	Study Work Green Technologies PS 2	
34	Engineering Mechanics I VL 2			Practical term 3 0	Computer Science for Engineers - Programming Concepts, Data Handling & Communication IV 3		
35	Engineering Mechanics I GÜ 2				Computer Science for Engineers - Programming Concepts, Data Handling & Communication GÜ 2		
36	Engineering Mechanics I HÜ 2						
37						<b>System Integration Renewable Energies (part 1)</b>	
38						System Integration Renewable Energies I VL 2	
39						System Integration Renewable Energies I GÜ 1	

Linking theory and practice (dual study program, Bachelor's degree) (from catalogue) - 6 LP

The choice of courses from the catalogue is flexible (depends on the semestral work load), provided the necessary number of required credits is reached.

