Course of Study Green Technologies: Energy, Water, Climate (Study Cohort w21)

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

1	**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	**Basics of Electrical Engineering** Basics of Electrical Engineering VL 3 Basics of Electrical Engineering GÜ 2	**Fundamentals of Fluid Mechanics** Fundamentals of Fluid Mechanics VL 2 Fluid Mechanics for Process Engineering HÜ 2 Fundamentals on Fluid Mechanics GÜ 2	**Heat and Mass Transfer** Heat and Mass Transfer VL 2 Heat and Mass Transfer GÜ 1 Heat and Mass Transfer HÜ 1	**System Integration Renewable Energies (part 2)** System Integration Renewable Energies II VL 2 System Integration Renewable Energies II GÜ 1
2						
3						
4						
5						**Climate change impact & mitigation** Technical measures to mitigate greenhouse gas emissions VL 2 Technical measures to mitigate greenhouse gas emissions GÜ 2 Basics of climate change and its effects VL 2
6						
7		**Mechanics II: Mechanics of Materials** Mechanics II VL 2 Mechanics II GÜ 2 Mechanics II HÜ 2	**Technical Thermodynamics II** Technical Thermodynamics II VL 2 Technical Thermodynamics II HÜ 1 Technical Thermodynamics II GÜ 1	**Sanitary Engineering I** Wastewater Disposal VL 2 Wastewater Disposal HÜ 1 Drinking Water Supply VL 2 Drinking Water Supply HÜ 1	**Introduction to Control Systems** Introduction to Control Systems VL 2 Introduction to Control Systems GÜ 2	
8						
9	**General and Inorganic Chemistry** General and Inorganic Chemistry VL 3 Fundamentals in Inorganic Chemistry PR 3 Fundamentals in Inorganic Chemistry GÜ 1					
10						**Bachelor Thesis**
11						
12						
13		**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	**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	**Conventional Energy Systems and Energy Industry** Power Industry VL 1 Energy markets and energy trading VL 2 Fossil Energy Systems VL 2 Fossil Energy Systems HÜ 1	**Economic and environmental project assessment** Basics of Environmental Project Assessment VL 2 Case studies economic and environmental project assessment GÜ 1 Basics of economic project assement VL 2	
14						
15	**Mechanics I (Statics)** Mechanics I VL 2 Mechanics I GÜ 2 Mechanics I HÜ 1					
16						
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19				**Renewable Energies** Renewable Energies I VL 2 Renewable Energies II VL 2 Renewable Energies I HÜ 1 Renewable Energies II HÜ 1	**Electrical Power Systems I: Introduction to Electrical Power Systems** Electrical Power Systems I: Introduction to Electrical Power Systems VL 3 Electrical Power Systems I: Introduction to Electrical Power Systems GÜ 2	
20						
21	**Computer Science for Engineers - Introduction and Overview** Computer Science for Engineers - Introduction and Overview VL 3 Computer Science for Engineers - Introduction and Overview GÜ 2	**Organic Chemistry** Organic Chemistry VL 4 Organic Chemistry PR 3	**Measurement Technology for Chemical and Bioprocess Engineering** Measurement Technology VL 2 Physical Fundamentals of Measurement Technology VL 2 Practical Course Measurement Technology PR 2			
22						
23						
24						
25				**Green Technologies II (part 2)** Practical Exercise Environmental Technology PR 1	**Green Technologies III** Scientific Work and Writing SE 2 Study Work Green Technologies PS 2	
26				**Computer Science for Engineers - Programming Concepts, Data Handling & Communication** Computer Science for Engineers - Programming Concepts, Data Handling & Communication VL 3 Computer Science for Engineers - Programming Concepts, Data Handling & Communication GÜ 2		
27	**Green Technologies I** Meteorology and Climate Systems - Introduction VL 2 Introduction to Green Technologies SE 2 Meteorology and Climate Systems - Introduction GÜ 2		**Green Technologies II (part 1)** Environmental Technologie VL 2 Pollutant analysis VL 2		**System Integration Renewable Energies (part 1)** System Integration Renewable Energies I VL 2 System Integration Renewable Energies I GÜ 1	
28						
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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.