Course of Study Green Technologies: Energy, Water, Climate (Study Cohort w24)

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

Mathematics I
Mathematics I	VL	4
Mathematics I	HÜ	2
Mathematics I	GÜ	2

General and Inorganic Chemistry
General and Inorganic Chemistry	VL	3
Fundamentals in Inorganic Chemistry	PR	3
Fundamentals in Inorganic Chemistry	GÜ	1

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

Green Technologies I
Meteorology and Climate Systems - Introduction	VL	2
Introduction Green Technologies	SE	2
Meteorology and Climate Systems - Introduction	GÜ	2

Engineering Mechanics I (Stereostatics)
Engineering Mechanics I	VL	2
Engineering Mechanics I	GÜ	2
Engineering Mechanics I	HÜ	2

Technical Thermodynamics I
Technical Thermodynamics I	VL	2
Technical Thermodynamics I	HÜ	1
Technical Thermodynamics I	GÜ	1

Mathematics II
Mathematics II	VL	4
Mathematics II	HÜ	2
Mathematics II	GÜ	2

Organic Chemistry
Organic Chemistry	VL	2
Organic Chemistry	PR	2
Organic Chemistry	GÜ	2

Engineering Mechanics II (Elastostatics)
Engineering Mechanics II	VL	2
Engineering Mechanics II	GÜ	2
Engineering Mechanics II	HÜ	2

Basics of Electrical Engineering
Basics of Electrical Engineering	VL	3
Basics of Electrical Engineering	GÜ	2

Technical Thermodynamics II
Technical Thermodynamics II	VL	2
Technical Thermodynamics II	HÜ	1
Technical Thermodynamics 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

Measurement Technology for Chemical and Bioprocess Engineering
Measurement Technology	VL	2
Physical Fundamentals of Measurement Technology	VL	2
Practical Course Measurement Technology	PR	2

Green Technologies II (part 1)
Environmental Technologie	VL	2
Pollutant analysis	VL	2

Fundamentals of Fluid Mechanics
Fundamentals of Fluid Mechanics	VL	2
Fluid Mechanics for Process Engineering	HÜ	2
Fundamentals on Fluid Mechanics	GÜ	2

Sanitary Engineering I
Wastewater Disposal	VL	2
Wastewater Disposal	HÜ	1
Drinking Water Supply	VL	2
Drinking Water Supply	HÜ	1

Conventional Energy Systems and Energy Industry
Power Industry	VL	1
Energy markets and energy trading	VL	2
Fossil Energy Systems	VL	2
Fuels I	VL	1

Renewable Energies
Renewable Energies I	VL	2
Renewable Energies II	VL	2
Renewable Energies I	HÜ	1
Fuels II	VL	1

Green Technologies II (part 2)
Practical Exercise Environmental Technology	PR	1

Heat and Mass Transfer
Heat and Mass Transfer	VL	2
Heat and Mass Transfer	GÜ	2
Heat and Mass Transfer	HÜ	1

Introduction to Control Systems
Introduction to Control Systems	VL	2
Introduction to Control Systems	GÜ	2

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

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

Green Technologies III
Scientific Work and Writing	SE	2
Study Work Green Technologies	PS	2

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

System Integration Renewable Energies (part 1)
System Integration Renewable Energies I	VL	2
System Integration Renewable Energies I	GÜ	1

System Integration Renewable Energies (part 2)
System Integration Renewable Energies II	VL	2
System Integration Renewable Energies II	GÜ	1

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

Bachelor Thesis

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.