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

Sample course plan B Bachelor Green Technologies: Energy, Water, Climate (GTBS)

Specialisation Biotechnologies

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	2

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	2

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 Treatment	VL	2
Wastewater Treatment	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

Biological and Biochemical Fundamentals (part 1)
| Biological and Biochemical Fundamentals | VL | 2 |

Bioprocess Technology I
Bioprocess Technology I	VL	2
Bioprocess Technology I	HÜ	2
Bioprocess Technology I - Fundamental Practical Course	PR	2

Biological and Biochemical Fundamentals (part 2)
| Fundamental Biological and Biochemical Practical Course | PR | 3 |
| Introduction to the Biological and Biochemical Practical Course | VL | 1 |

Fundamentals in Molecular Biology
Genetics and Molecular Biology	VL	2
Genetics and Molecular Biology	PBL	1
Molecular Biology Lab Course	PR	3

Regulatory aspects of biological agents
| Regulatory aspects of biological agents | VL | 2 |

Bioinformatics
| Bioinformatics | SE | 2 |

Conceptual Process Design
Conceptual Process Design	VL	2
Conceptual Process Design	HÜ	2
Conceptual Process Design	GÜ	1

Bachelor Thesis

Semester rows: 1–34

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.