## Course of Study Green Technologies: Energy, Water, Climate (Study Cohort w22)

Core Qualification Compulsory Specialisation Compulsory Focus Compulsory Thesis Compulsory Core Qualification Elective Compulsory Specialisation Elective Compulsory Focus Elective Compulsory Interdisciplinary complement Sample course plan T Bachelor Green Technologies: Energy, Water, Climate (GTBS) Specialisation Energy Technology Mathematics I Technical Thermodynamics I Basics of Electrical Engineering Fundamentals of Fluid Mechanics Heat and Mass Transfer Mechanical Engineering: Design (part 2) Mathematics I Technical Thermodynamics I Basics of Electrical Engineering Fundamentals of Fluid Mechanics Heat and Mass Transfer Team Project Design Methodology PBL 2 HÜ 2 Mathematics I HÜ 1 GÜ 2 HÜ 2 GÜ 1 Mechanical Design Project II Technical Thermodynamics I Basics of Electrical Engineering Fluid Mechanics for Process Engineering Heat and Mass Transfer PRI 3 3 Mathematics I Technical Thermodynamics I Fundamentals on Fluid Mechanics Heat and Mass Transfer Reciprocating Machinery (part 2) Internal Combustion Engines I VI 2 Internal Combustion Engines I HÜ 1 6 Mathematics II Technical Thermodynamics II Sanitary Engineering I Introduction to Control Systems Mathematics II Technical Thermodynamics II Wastewater Disposal Introduction to Control Systems HŪ 1 GÜ HÜ 2 HÜ 1 Mathematics II Technical Thermodynamics II Wastewater Disposal Introduction to Control Systems General and Inorganic Chemistry Technical Thermodynamics II Drinking Water Supply VL 2 General and Inorganic Chemistry Drinking Water Supply Fundamentals in Inorganic Chemistry Fundamentals in Inorganic Chemistry 12 13 Mathematics III Conventional Energy Systems and Energy Industry Economic and environmental project assessment Analysis III Power Industry VI 1 Basics of Environmental Project Assessment 14 GÜ 1 Analysis III Energy markets and energy trading VI 2 Case studies economic and environmental 15 Computer Science for Engineers - Introduction and Organic Chemistry HÜ 1 Fossil Energy Systems VL 2 Analysis III Organic Chemistry Basics of economic project assement 16 Computer Science for Engineers - Introduction VI 3 Organic Chemistry Differential Equations 1 GÜ 1 17 Differential Equations 1 HÜ 1 Computer Science for Engineers - Introduction GÜ 2 and Overview 19 Renewable Energies Mechanical Engineering: Design (part 1) Renewable Energies I Embodiment Design and 3D-CAD Introduction and Practical Training VI 2 Renewable Energies II 21 Engineering Mechanics II (Elastostatics) Measurement Technology for Chemical and Bioprocess HŪ 1 Mechanical Design Project I Renewable Energies I Meteorology and Climate Systems - Introduction VL 2 Engineering Mechanics II VL 2 22 Numerical Mathematics I Measurement Technology Introduction Green Technologies SE 2 Engineering Mechanics II Numerical Mathematics I VI 2 23 Physical Fundamentals of Measurement Meteorology and Climate Systems - Introduction GÜ 2 Engineering Mechanics II VI 2 Numerical Mathematics I GÜ 2 24 Practical Course Measurement Technology 25 Green Technologies II (part 2) Practical Exercise Environmental Technology 26 Fundamentals of Mechanical Engineering Design Fundamentals of Mechanical Engineering Design VL 2 27 Engineering Mechanics I (Stereostatics) Green Technologies II (part 1) Fundamentals of Mechanical Engineering Design HÜ 2 Engineering Mechanics I Environmental Technologie 28 **Fundamentals of Materials Science** GÜ 2 VI 2 Engineering Mechanics I Pollutant analysis Fundamentals of Materials Science II 29 Engineering Mechanics I HÜ 1 Fundamentals of Materials Science I VL 2 30 Physical and Chemical Basics of Materials 31 32 33 34 Reciprocating Machinery (part 1) Fundamentals of Reciprocating Engines and 35 Turbomachinery - Part Reciprocating Engines Fundamentals of Reciprocating Engines and Turbomachinery - Part Reciprocating Engines 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.