

# Course of Study General Engineering Science (German program, 7 semester) (Study Cohort w22)

Sample course plan A Bachelor General Engineering Science (German program, 7 semester) (AIWBS(7)) Dual study program

Legend:

Core Qualification Compulsory	Specialisation Compulsory	Focus Compulsory	Thesis Compulsory
Core Qualification Elective Compulsory	Specialisation Elective Compulsory	Focus Elective Compulsory	Interdisciplinary complement

Specialisation Green Technologies, Focus Renewable Energy

1	<b>Chemistry</b> Chemistry I+II VL 4 Chemistry I+II HÜ 2	<b>Electrical Engineering II: Alternating Current Networks and Basic Devices</b> Electrical Engineering II: Alternating Current Networks and Basic Devices VL 3 Electrical Engineering II: Alternating Current Networks and Basic Devices GÜ 2	<b>Technical Thermodynamics II</b> Technical Thermodynamics II VL 2 Technical Thermodynamics II HÜ 1 Technical Thermodynamics II GÜ 1	<b>Signals and Systems</b> Signals and Systems VL 3 Signals and Systems GÜ 2	<b>Introduction to Control Systems</b> Introduction to Control Systems VL 2 Introduction to Control Systems GÜ 2	<b>Foundations of Management</b> Introduction to Management VL 3 Management Tutorial GÜ 2	<b>Advanced Internship AIW/ ES</b>
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7	<b>Electrical Engineering I: Direct Current Networks and Electromagnetic Fields</b> Electrical Engineering I: Direct Current Networks and Electromagnetic Fields VL 3 Electrical Engineering I: Direct Current Networks and Electromagnetic Fields GÜ 2	<b>Fundamentals of Mechanical Engineering Design</b> Fundamentals of Mechanical Engineering Design VL 2 Fundamentals of Mechanical Engineering Design HÜ 2	<b>Mathematics III</b> 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	<b>Practical module 4 (dual study program, Bachelor's degree)</b> Practical term 4 0	<b>Practical module 5 (dual study program, Bachelor's degree)</b> Practical term 5 0	<b>Green Technologies II (part 2)</b> Practical Exercise Environmental Technology PR 1  <b>Phase Equilibria Thermodynamics</b> Phase Equilibria Thermodynamics VL 2 Phase Equilibria Thermodynamics GÜ 1 Phase Equilibria Thermodynamics HÜ 1	
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13	<b>Mathematics I</b> Mathematics I VL 4 Mathematics I HÜ 2 Mathematics I GÜ 2	<b>Technical Thermodynamics I</b> Technical Thermodynamics I VL 2 Technical Thermodynamics I HÜ 1 Technical Thermodynamics I GÜ 1	<b>Practical module 3 (dual study program, Bachelor's degree)</b> Practical term 3 0	<b>Fundamentals of Fluid Mechanics</b> Fundamentals of Fluid Mechanics VL 2 Fluid Mechanics for Process Engineering HÜ 2 Fundamentals on Fluid Mechanics GÜ 2	<b>Heat and Mass Transfer</b> Heat and Mass Transfer VL 2 Heat and Mass Transfer GÜ 2 Heat and Mass Transfer HÜ 1	<b>Climate change impact &amp; mitigation</b> 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	
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19		<b>Mathematics II</b> Mathematics II VL 4 Mathematics II HÜ 2 Mathematics II GÜ 2	<b>Engineering Mechanics III (Dynamics)</b> Engineering Mechanics III VL 3 Engineering Mechanics III GÜ 2 Engineering Mechanics III HÜ 1	<b>Sanitary Engineering I</b> Wastewater Disposal VL 2 Wastewater Disposal HÜ 1 Drinking Water Supply VL 2 Drinking Water Supply HÜ 1	<b>Green Technologies II (part 1)</b> Environmental Technologie VL 2 Pollutant analysis VL 2		
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21	<b>Computer Science for Engineers - Introduction and Overview</b> Computer Science for Engineers - Introduction and Overview VL 3 Computer Science for Engineers - Introduction and Overview GÜ 2						
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27	<b>Practical module 1 (dual study program, Bachelor's degree)</b> Practical term 1 0	<b>Practical module 2 (dual study program, Bachelor's degree)</b> Practical term 2 0	<b>Measurement Technology for Chemical and Bioprocess Engineering</b> Measurement Technology VL 2 Physical Fundamentals of Measurement Technology VL 2 Practical Course Measurement Technology PR 2	<b>Conventional Energy Systems and Energy Industry</b> Power Industry VL 1 Energy markets and energy trading VL 2 Fossil Energy Systems VL 2 Fuels I VL 1	<b>Thermal Separation Processes</b> Thermal Separation Processes VL 2 Thermal Separation Processes GÜ 2 Thermal Separation Processes HÜ 1 Separation Processes PR 1		
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33	<b>Engineering Mechanics I (Stereostatics)</b> Engineering Mechanics I VL 2 Engineering Mechanics I GÜ 2 Engineering Mechanics I HÜ 1	<b>Engineering Mechanics II (Elastostatics)</b> Engineering Mechanics II VL 2 Engineering Mechanics II GÜ 2 Engineering Mechanics II HÜ 2	<b>Green Technologies I</b> Meteorology and Climate Systems - Introduction VL 2 Introduction Green Technologies SE 2 Meteorology and Climate Systems - Introduction GÜ 2	<b>Renewable Energies</b> Renewable Energies I VL 2 Renewable Energies II VL 2 Renewable Energies I HÜ 1 Fuels II VL 1	<b>Electrical Power Systems I: Introduction to Electrical Power Systems</b> Electrical Power Systems I: Introduction to Electrical Power Systems VL 3 Electrical Power Systems I: Introduction to Electrical Power Systems GÜ 2		
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Linking theory and practice (dual study program, Bachelor's degree) (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.

