

# Course of Study General Engineering Science (German program, 7 semester) (Study Cohort w21)

Sample course plan B Bachelor General Engineering Science (German program, 7 semester) (AIWBS(7))

Specialisation Mechanical Engineering, Focus Energy Systems								
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 Current Networks and Basic Devices	<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> Advanced Internship AIW/ ES: Preparation SE 1 Advanced Intership AIW/ ES: Internship-accompanying Seminar SE 1	
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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 Design 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>Engineering Mechanics III (Dynamics)</b> Engineering Mechanics III VL 3 Engineering Mechanics III GÜ 2 Engineering Mechanics III HÜ 1	<b>Fluid Dynamics</b> Fluid Mechanics VL 3 Fluid Mechanics HÜ 2	<b>Measurement Technology for Mechanical Engineers</b> Measurement Technology for Mechanical Engineering VL 2 Measurement Technology for Mechanical Engineering PR 2 Practical Course: Measurement and Control Systems PR 2	<b>Electrical Machines and Actuators</b> Electrical Machines and Actuators VL 3 Electrical Machines and Actuators HÜ 2		
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13	<b>Mathematics I</b> 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	<b>Technical Thermodynamics I</b> Technical Thermodynamics I VL 2 Technical Thermodynamics I HÜ 1 Technical Thermodynamics I GÜ 1			<b>Computational Mechanics</b> Computational Multibody Dynamics IV 2 Computational Mechanics GÜ 2 Computational Stuctural Mechanics IV 2	<b>Heat Transfer</b> Heat Transfer VL 3 Heat Transfer HÜ 2	<b>Computer Science for Engineers - Programming Concepts, Data Handling &amp; Communication</b> Computer Science for Engineers - Programming Concepts, Data Handling & Communication VL 3 Computer Science for Engineers - Programming Concepts, Data Handling & Communication GÜ 2	
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19		<b>Mechanics II: Mechanics of Materials</b> Mechanics II VL 2 Mechanics II GÜ 2 Mechanics II HÜ 2	<b>Advanced Mechanical Engineering Design (part 1)</b> Advanced Mechanical Engineering Design I VL 2 Advanced Mechanical Engineering Design I HÜ 2  <b>Mechanical Engineering: Design (part 1)</b> Embodiment Design and 3D-CAD VL 2 Introduction and Practical Training Mechanical Design Project I PBL 3	<b>Advanced Mechanical Engineering Design (part 2)</b> Advanced Mechanical Engineering Design II VL 2 Advanced Mechanical Engineering Design II HÜ 2	<b>Reciprocating Machinery (part 1)</b> Fundamentals of Reciprocating Engines and Turbomachinery - Part Reciprocating Engines VL 1 Fundamentals of Reciprocating Engines and Turbomachinery - Part Reciprocating Engines HÜ 1	<b>Reciprocating Machinery (part 2)</b> Internal Combustion Engines I VL 2 Internal Combustion Engines I HÜ 1	<b>Bachelor Thesis</b>	
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25	<b>Mathematics II</b> 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			<b>Mechanical Engineering: Design (part 2)</b> Team Project Design Methodology PBL 2 Mechanical Design Project II PBL 3	<b>Numerical Mathematics I</b> Numerical Mathematics I VL 2 Numerical Mathematics I GÜ 2	<b>Renewables Energy Systems und Energy Economy</b> Renewable Energy VL 2 Energy Systems and Energy Industry VL 2 Power Industry VL 1 Renewable Energy GÜ 1		
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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.

