

# Course of Study General Engineering Science (German program, 7 semester) (Study Cohort w19)

Sample course plan C Bachelor General Engineering Science (German program, 7 semester) (AIWBS(7))  
Specialisation Mechanical Engineering, Focus Energy Systems

Legend:

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

LP	Semester 1	Form	Hrs	Semester 2	Form	Hrs	Semester 3	Form	Hrs	Semester 4	Form	Hrs	Semester 5	Form	Hrs	Semester 6	Form	Hrs	Semester 7	Form	Hrs/wk		
1	<b>Chemistry</b>	Chemistry I	VL 2	<b>Electrical Engineering II: Alternating Current Networks and Basic Devices</b>	Electrical Engineering II: VL 3	Alternating Current Networks and Basic Devices	<b>Technical Thermodynamics II</b>	Technical Thermodynamics II	VL 2	<b>Mechanical Engineering: Design (part 2)</b>	Team Project Design Methodology	PBL2	<b>Introduction to Control Systems</b>	Introduction to Control Systems	VL 2	<b>Foundations of Management</b>	Introduction to Management	VL 3	<b>Advanced Internship GES</b>				
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7	<b>Electrical Engineering I: Direct Current Networks and Electromagnetic Fields</b>	Electrical Engineering I: VL 3	Direct Current Networks and Electromagnetic Fields	<b>Fundamentals of Mechanical Engineering Design</b>	Fundamentals of Mechanical Engineering Design	HÜ 2	<b>Mathematics III</b>	Analysis III	VL 2	<b>Fluid Dynamics</b>	Fluid Mechanics	VL 3	<b>Measurement Technology for Mechanical and Process Engineers</b>	Measurement Technology for Mechanical and Process Engineers	VL 2	<b>Advanced Mechanical Engineering Design (part 2)</b>	Advanced Mechanical Engineering Design II	VL 2	<b>Reciprocating Machinery (part 2)</b>	Internal Combustion Engines I	VL 2		
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13	<b>Mathematics I</b>	Linear Algebra I	VL 2	<b>Technical Thermodynamics I</b>	Technical Thermodynamics I	HÜ 1	<b>Mechanics III (Hydrostatics, Kinematics, Kinetics I)</b>	Mechanics III	VL 3	<b>Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)</b>	Mechanics IV	VL 3	<b>Advanced Mechanical Engineering Design (part 1)</b>	Advanced Mechanical Engineering Design I	VL 2	<b>Advanced Materials Characterization</b>	Advanced Materials Characterization	VL 2	<b>Bachelor Thesis</b>				
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19	<b>Mechanics I (Statics)</b>	Mechanics I	VL 2	<b>Mechanics II: Mechanics of Materials</b>	Mechanics II	VL 2	<b>Computer Engineering</b>	Computer Engineering	VL 3	<b>Signals and Systems</b>	Signals and Systems	VL 3	<b>Heat Transfer</b>	Heat Transfer	VL 3	<b>Renewables and Energy Systems</b>	Renewable Energy	VL 2					
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	Mechanics I Mechanics I	UE 2 HÜ 1	Mechanics II	HÜ 2	Computer Engineering	UE 1		(part 1) Fundamentals of Reciprocating Engines and Turbomachinery - Part Reciprocating Engines Fundamentals of Reciprocating Engines and Turbomachinery - Part Reciprocating Engines	VL 1 HÜ 1	Energy Systems Energy Industry Power Industry Renewable Energy	VL 1 UE 1	
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25												
26			<b>Mathematics II</b>					<b>Computational Fluid Dynamics I</b>				
27			Linear Algebra II	VL 2				Computational Fluid Dynamics I	VL 2			
28	<b>Programming in C</b> Programming in C Programming in C	VL 1 PR 1	Linear Algebra II Linear Algebra II Analysis II	UE 1 HÜ 1 VL 2	<b>Mechanical Engineering: Design (part 1)</b> Embodiment Design and 3D-CAD	VL 2		Computational Fluid Dynamics I	HÜ 2			
29	<b>Physics for Engineers (AIW)</b> Physics for Engineers	VL 2	Analysis II Analysis II	HÜ 1 UE 1	Mechanical Design Project I	PBL3						
30	Physics for Engineers	UE 1										
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	Nontechnical Complementary 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.