

# Course of Study General Engineering Science (German program, 7 semester) (Study Cohort w20)

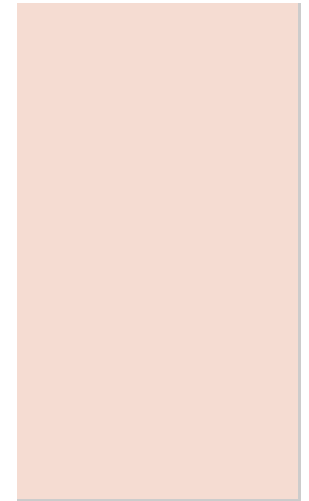
Sample course plan C Bachelor General Engineering Science (German program, 7 semester) (AIWBS(7))  
Specialisation Mechanical Engineering, Focus Energy Systems

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
1	<b>Chemistry</b> Chemistry I+II Chemistry I+II	VL 4	<b>Electrical Engineering II: Alternating Current Networks and Basic Devices</b> Electrical Engineering II: Alternating Current Networks and Basic Devices Electrical Engineering II: Alternating Current Networks and Basic Devices	VL 3	<b>Technical Thermodynamics II</b> Technical Thermodynamics II Technical Thermodynamics II	VL 2	<b>Signals and Systems</b> Signals and Systems Signals and Systems	VL 3	<b>Introduction to Control Systems</b> Introduction to Control Systems Introduction to Control Systems	VL 2	<b>Foundations of Management</b> Introduction to Management Management Tutorial	VL 3	<b>Advanced Internship AIW/GES</b>	
2		HÜ 2		UE 2		HÜ 1		UE 2		UE 2		UE 2		
3														
4														
5														
6														
7	<b>Electrical Engineering I: Direct Current Networks and Electromagnetic Fields</b> Electrical Engineering I: Direct Current Networks and Electromagnetic Fields Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	VL 3	<b>Fundamentals of Mechanical Engineering Design</b> Fundamentals of Mechanical Engineering Design Fundamentals of Mechanical Engineering Design	VL 2	<b>Mathematics III</b> Analysis III Analysis III Analysis III	VL 2	<b>Fluid Dynamics</b> Fluid Mechanics Fluid Mechanics	VL 3	<b>Measurement Technology for Mechanical Engineers</b> Measurement Technology for Mechanical Engineering Measurement Technology for Mechanical Engineering Practical Course: Measurement and Control Systems	VL 2	<b>Electrical Machines and Actuators</b> Electrical Machines and Actuators Electrical Machines and Actuators	VL 3		
8		UE 2		UE 1		UE 1		UE 1		UE 1		UE 2		
9														
10														
11														
12														
13	<b>Mathematics I</b> Linear Algebra I Linear Algebra I Linear Algebra I Analysis I Analysis I Analysis I	VL 2	<b>Technical Thermodynamics I</b> Technical Thermodynamics I Technical Thermodynamics I	VL 2	<b>Mechanics III (Dynamics)</b> Mechanics III Mechanics III Mechanics III	VL 3	<b>Mechanics IV (Oscillations, Analytical Mechanics, Multibody Systems, Numerical Mechanics)</b> Mechanics IV Mechanics IV Mechanics IV	VL 3	<b>Computational Fluid Dynamics I</b> Computational Fluid Dynamics I Computational Fluid Dynamics I	VL 2	<b>Renewables and Energy Systems</b> Renewable Energy Energy Systems and Energy Industry Power Industry Renewable Energy	VL 2		
14		UE 1		UE 1		UE 2		UE 2		UE 2		UE 1		
15		HÜ 1		HÜ 1		HÜ 1		HÜ 1		HÜ 1		HÜ 1		
16														
17														
18														
19	<b>Mechanics I (Statics)</b> Mechanics I Mechanics I Mechanics I	VL 2	<b>Mechanics II: Mechanics of Materials</b> Mechanics II Mechanics II Mechanics II	VL 2	<b>Advanced Mechanical Engineering Design (part 1)</b> Advanced Mechanical Engineering Design I Advanced Mechanical Engineering Design I	VL 2	<b>Advanced Mechanical Engineering Design (part 2)</b> Advanced Mechanical Engineering Design II Advanced Mechanical Engineering Design II	VL 3	<b>Heat Transfer</b> Heat Transfer Heat Transfer	VL 3	<b>Reciprocating Machinery (part 2)</b> Internal Combustion Engines I Internal Combustion Engines I	VL 2	<b>Bachelor Thesis</b>	
20		UE 2		UE 2		UE 2		UE 2		UE 2		UE 1		
21		UE 2		HÜ 2		HÜ 2		HÜ 2		HÜ 2		HÜ 1		
22		HÜ 1												

23			Engineering Design I	<b>Mechanical Engineering: Design (part 2)</b>	
24			<b>Mechanical Engineering: Design (part 1)</b> Embodiment Design and 3D-CAD VL 2	Team Project Design Methodology PBL2 Mechanical Design Project II PBL3	
25					
26		<b>Mathematics II</b> Linear Algebra II VL 2 Linear Algebra II UE 1 Linear Algebra II HÜ 1	Mechanical Design Project I PBL3	<b>Fundamentals of Materials Science (part 2)</b> Fundamentals of Materials Science II VL 2	<b>Computer Engineering</b> Computer Engineering VL 3 Computer Engineering UE 1
27	<b>Programming in C</b>	Analysis II VL 2			
28	Programming in C VL 1 Programming in C PR 1	Analysis II HÜ 1 Analysis II UE 1	<b>Fundamentals of Materials Science (part 1)</b> Fundamentals of Materials Science I VL 2		
29			Physical and Chemical Basics of Materials Science VL 2		
30	<b>Physics for Engineers (AIW)</b> Physics for Engineers VL 2				
31	Physics for Engineers UE 1				
32					<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



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.