

# 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 Aircraft Systems Engineering

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	Semester 2	Form	Semester 3	Form	Semester 4	Form	Semester 5	Form	Semester 6	Form	Semester 7	Form												
1	<b>Chemistry</b>	VL 2	<b>Electrical Engineering II: Alternating Current Networks and Basic Devices</b>	VL 3	<b>Technical Thermodynamics II</b>	VL 2	<b>Mechanical Engineering: Design (part 2)</b>	PBL2	<b>Computer Engineering</b>	VL 3	<b>Foundations of Management</b>	VL 3	<b>Advanced Internship GES</b>													
2															Chemistry I	HÜ 1	Electrical Engineering II: Alternating Current Networks and Basic Devices	HÜ 1	Technical Thermodynamics II	HÜ 1	Team Project Design Methodology	PBL2	Computer Engineering	UE 1	Introduction to Management	HÜ 2
3															Chemistry II	HÜ 1	Electrical Engineering II: Alternating Current Networks and Basic Devices	HÜ 1	Technical Thermodynamics II	HÜ 1	Mechanical Design Project II	PBL3	Computer Engineering	UE 1	Management Tutorial	HÜ 2
4															Chemistry I	HÜ 1	Electrical Engineering II: Alternating Current Networks and Basic Devices	HÜ 1	Technical Thermodynamics II	HÜ 1	Fundamentals of Materials Science (part 2)					
5															Chemistry II	HÜ 1	Electrical Engineering II: Alternating Current Networks and Basic Devices	HÜ 1	Technical Thermodynamics II	HÜ 1	Fundamentals of Materials Science II	VL 2				
6																										
7	<b>Electrical Engineering I: Direct Current Networks and Electromagnetic Fields</b>	VL 3	<b>Fundamentals of Mechanical Engineering Design</b>	VL 2	<b>Mathematics III</b>	VL 2	<b>Advanced Mechanical Engineering Design (part 2)</b>	VL 2	<b>Introduction to Control Systems</b>	VL 2	<b>Integrated Product Development and Lightweight Design</b>	VL 2														
8														Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	HÜ 2	Fundamentals of Mechanical Engineering Design	HÜ 2	Analysis III	UE 1	Advanced Mechanical Engineering Design II	HÜ 2	Introduction to Control Systems	UE 2	Integrated Product Development I	VL 2	
9														Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	UE 2	Fundamentals of Mechanical Engineering Design	UE 2	Analysis III	HÜ 1	Advanced Mechanical Engineering Design II	HÜ 2	Introduction to Control Systems	UE 2	Development of Lightweight Design Products	VL 2	
10														Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	UE 2	Fundamentals of Mechanical Engineering Design	UE 2	Differential Equations 1	VL 2	<b>Fluid Dynamics</b>				CAE-Team Project	PBL2	
11														Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	UE 2	Fundamentals of Mechanical Engineering Design	UE 2	Differential Equations 1	UE 1	Fluid Mechanics	VL 3					
12														Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	UE 2	Fundamentals of Mechanical Engineering Design	UE 2	Differential Equations 1	HÜ 1	Fluid Mechanics	HÜ 2					
13	<b>Mathematics I</b>	VL 2	<b>Technical Thermodynamics I</b>	VL 2	<b>Mechanics III (Hydrostatics, Kinematics, Kinetics I)</b>	VL 3	<b>Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)</b>	VL 3	<b>Measurement Technology for Mechanical and Process Engineers</b>	VL 2	<b>Aeronautical Systems</b>	VL 2														
14														Linear Algebra I	UE 1	Technical Thermodynamics I	HÜ 1	Mechanics III	UE 2	Mechanics IV	VL 3	Measurement Technology for Mechanical and Process Engineers	VL 2	Air Transportation Systems	VL 2	
15														Linear Algebra I	UE 1	Technical Thermodynamics I	HÜ 1	Mechanics III	UE 2	Mechanics IV	UE 2	Measurement Technology for Mechanical and Process Engineers	HÜ 1	Fundamentals of Aircraft Systems	VL 2	
16														Linear Algebra I	HÜ 1	Technical Thermodynamics I	HÜ 1	Mechanics III	HÜ 1	Mechanics IV	HÜ 1	Measurement Technology for Mechanical and Process Engineers	HÜ 1	Fundamentals of Aircraft Systems	UE 1	
17														Linear Algebra I	HÜ 1	Technical Thermodynamics I	HÜ 1	Mechanics III	HÜ 1	Mechanics IV	HÜ 1	Measurement Technology for Mechanical and Process Engineers	HÜ 1	Air Transportation Systems	HÜ 1	
18														Analysis I	VL 2	Technical Thermodynamics I	UE 1	Mechanics III	HÜ 1	Mechanics IV	HÜ 1	Measurement Technology for Mechanical and Process Engineers	HÜ 1			
19	Analysis I	UE 1	Technical Thermodynamics I	UE 1	Mechanics III	HÜ 1	Mechanics IV	HÜ 1	Practical Course: Measurement and Control Systems	PR 2																
20	Analysis I	HÜ 1	Technical Thermodynamics I	HÜ 1	Mechanics III	HÜ 1	Mechanics IV	HÜ 1																		
21	<b>Mechanics I (Statics)</b>	VL 2	<b>Mechanics II: Mechanics of Materials</b>	VL 2	<b>Mechanical Engineering:</b>		<b>Signals and Systems</b>		<b>Advanced Mechanical Design Project</b>	PBL4	<b>Advanced Materials</b>	VL 2	<b>Bachelor Thesis</b>													
22														Mechanics II	UE 2	Mechanics II	UE 2	Advanced Mechanical Design Project	PBL4	Advanced Materials	VL 2					

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

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.