

# 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 Mechatronics

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	PBL3	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		Computer Engineering		Management Tutorial	
4															Chemistry I		Electrical Engineering II: Alternating Current Networks and Basic Devices		Technical Thermodynamics II							
5															Chemistry II		Electrical Engineering II: Alternating Current Networks and Basic Devices		Technical Thermodynamics II		<b>Fundamentals of Materials Science (part 2)</b>					
6																	Electrical Engineering II: Alternating Current Networks and Basic Devices		Technical Thermodynamics II		Fundamentals of Materials Science II	VL 2				
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>Semiconductor Circuit Design</b>	VL 3														
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	Semiconductor Circuit Design	UE 1	
9														Electrical Engineering I: Direct Current Networks and Electromagnetic Fields		Fundamentals of Mechanical Engineering Design		Analysis III		Advanced Mechanical Engineering Design II		Introduction to Control Systems		Semiconductor Circuit Design		
10														Electrical Engineering I: Direct Current Networks and Electromagnetic Fields		Fundamentals of Mechanical Engineering Design		Differential Equations 1	VL 2	<b>Fluid Dynamics</b>				Semiconductor Circuit Design		
11														Electrical Engineering I: Direct Current Networks and Electromagnetic Fields		Fundamentals of Mechanical Engineering Design		Differential Equations 1	UE 1	Fluid Mechanics	VL 3			Semiconductor Circuit Design		
12														Electrical Engineering I: Direct Current Networks and Electromagnetic Fields		Fundamentals of Mechanical Engineering Design		Differential Equations 1	HÜ 1	Fluid Mechanics	HÜ 2			Semiconductor Circuit Design		
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>Mathematics IV</b>	VL 2														
14														Linear Algebra I	HÜ 1	Technical Thermodynamics I	HÜ 1	Mechanics III	UE 2	Mechanics IV	UE 2	Measurement Technology for Mechanical and Process Engineers	HÜ 1	Complex Functions	UE 1	
15														Linear Algebra I	UE 1	Technical Thermodynamics I	UE 1	Mechanics III	UE 2	Mechanics IV	UE 2	Measurement Technology for Mechanical and Process Engineers	UE 1	Complex Functions	HÜ 1	
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	Complex Functions	HÜ 1	
17														Analysis I	VL 2	Technical Thermodynamics I	UE 1	Mechanics III	UE 2	Mechanics IV	UE 2	Measurement Technology for Mechanical and Process Engineers	UE 1	Differential Equations 2	VL 2	
18														Analysis I	UE 1	Technical Thermodynamics I	UE 1	Mechanics III	HÜ 1	Mechanics IV	HÜ 1	Measurement Technology for Mechanical and Process Engineers	UE 1	Differential Equations 2	UE 1	
19									Practical Course: Measurement and Control Systems	PR 2	Differential Equations 2	HÜ 1														
20			<b>Mechanics II: Mechanics of Materials</b>																							
21			Mechanics II	VL 2					<b>Electrical Engineering III: Circuit Theory and Transients</b>		<b>Advanced Materials</b>		<b>Bachelor Thesis</b>													
22	<b>Mechanics I (Statics)</b>		Mechanics II	UE 2	<b>Mechanical Engineering:</b>		<b>Signals and Systems</b>		Circuit Theory	VL 3	Advanced Materials	VL 2														
22			Mechanics II	UE 2							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	Circuit Theory	UE 2	Design Advanced Materials Design	HÜ 2
24					<b>Fundamentals of Materials Science (part 1)</b>							
25			<b>Mathematics II</b>						<b>Simulation and Design of Mechatronic Systems</b>			
26			Linear Algebra II	VL 2	Fundamentals of Materials Science I	VL 2			Simulation and Design of Mechatronic Systems	VL 2		
27	<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	Physical and Chemical Basics of Materials Science	VL 2			Simulation and Design of Mechatronic Systems	HÜ 1		
28			Analysis II	HÜ 1					Simulation and Design of Mechatronic Systems	PR 1		
29	<b>Physics for Engineers (AIW)</b>		Analysis II	UE 1	<b>Advanced Mechanical Engineering Design (part 1)</b>							
30	Physics for Engineers Physics for Engineers	VL 2 UE 1			Advanced Mechanical Engineering Design I Advanced Mechanical Engineering Design I	VL 2 HÜ 2						
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.