

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

Sample course plan B Bachelor General Engineering Science (German program, 7 semester) (AIWBS(7))  
Specialisation Mechanical Engineering, Focus Theoretical Mechanical 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						
5															Chemistry II	HÜ 1	Electrical Engineering II: Alternating Current Networks and Basic Devices	HÜ 1	Technical Thermodynamics II	HÜ 1	<b>Fundamentals of Materials Science (part 2)</b>					
6																					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>Mathematics IV</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	Complex Functions	UE 1	
9														Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	HÜ 2	Fundamentals of Mechanical Engineering Design	HÜ 2	Analysis III	HÜ 1	Advanced Mechanical Engineering Design II	HÜ 2	Introduction to Control Systems	UE 2	Complex Functions	HÜ 1	
10														Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	HÜ 2	Fundamentals of Mechanical Engineering Design	HÜ 2	Differential Equations 1	VL 2	<b>Fluid Dynamics</b>		Introduction to Control Systems	UE 2	Differential Equations 2	VL 2	
11														Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	HÜ 2	Fundamentals of Mechanical Engineering Design	HÜ 2	Differential Equations 1	UE 1	Fluid Mechanics	VL 3			Differential Equations 2	UE 1	
12														Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	HÜ 2	Fundamentals of Mechanical Engineering Design	HÜ 2	Differential Equations 1	HÜ 1	Fluid Mechanics	HÜ 2			Differential Equations 2	HÜ 1	
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>Fundamentals of Production and Quality Management</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	HÜ 1	Production Process Organization	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	Quality Management	VL 2	
16														Linear Algebra I	UE 1	Technical Thermodynamics I	HÜ 1	Mechanics III	HÜ 1	Mechanics IV	HÜ 1	Measurement Technology for Mechanical and Process Engineers	HÜ 1			
17														Linear Algebra I	UE 1	Technical Thermodynamics I	HÜ 1	Mechanics III	HÜ 1	Mechanics IV	HÜ 1	Measurement Technology for Mechanical and Process Engineers	HÜ 1			
18														Linear Algebra I	UE 1	Technical Thermodynamics I	HÜ 1	Mechanics III	HÜ 1	Mechanics IV	HÜ 1	Measurement Technology for Mechanical and Process Engineers	HÜ 1			
19	<b>Mathematics I</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>Production Engineering (part 2)</b>	VL 2														
20														Analysis I	UE 1	Mechanics II	UE 2									
21														Analysis I	HÜ 1	Mechanics II	UE 2									
21	<b>Mechanics I (Statics)</b>		Mechanics II	UE 2					Advanced Mechanical Design Project	PBL4	Production Engineering II	VL 2	<b>Bachelor Thesis</b>													

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