

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

Sample course plan A Bachelor General Engineering Science (German program, 7 semester) (AIWBS(7))  
Specialisation Mechanical Engineering, Focus Materials in Engineering Sciences

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	FormHrs	Semester 2	FormHrs	Semester 3	FormHrs	Semester 4	FormHrs	Semester 5	FormHrs	Semester 6	FormHrs	Semester 7	FormHrs/wk												
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	UE 1	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>Enhanced Fundamentals of Materials Science</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	Enhanced Fundamentals: Metals		
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		Enhanced Fundamentals: Ceramics and Polymers		
10														Electrical Engineering I: Direct Current Networks and Electromagnetic Fields		Fundamentals of Mechanical Engineering Design		Differential Equations 1	VL 2	<b>Fluid Dynamics</b>		Introduction to Control Systems		Enhanced Fundamentals: Ceramics and Polymers		
11														Electrical Engineering I: Direct Current Networks and Electromagnetic Fields		Fundamentals of Mechanical Engineering Design		Differential Equations 1	UE 1	Fluid Mechanics	VL 3			Enhanced Fundamentals: Ceramics and Polymers		
12														Electrical Engineering I: Direct Current Networks and Electromagnetic Fields		Fundamentals of Mechanical Engineering Design		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>Structural Materials (part 2)</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		Fundamentals of Mechanical Properties of Materials		
15														Linear Algebra I		Technical Thermodynamics I		Mechanics III		Mechanics IV		Measurement Technology for Mechanical and Process Engineers				
16														Linear Algebra I		Technical Thermodynamics I		Mechanics III		Mechanics IV		Measurement Technology for Mechanical and Process Engineers		<b>Electrical Machines and Actuators</b>		
17														Analysis I	UE 1	Technical Thermodynamics I	UE 1	Mechanics III	UE 2	Mechanics IV	UE 2	Measurement Technology for Mechanical and Process Engineers	HÜ 1	Electrical Machines and Actuators	VL 3	
18														Analysis I	HÜ 1	Technical Thermodynamics I	HÜ 1	Mechanics III	HÜ 1	Mechanics IV	HÜ 1	Measurement Technology for Mechanical and Process Engineers		Electrical Machines and Actuators	HÜ 2	
19	<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>Numerical Mathematics I</b>	VL 2																
20													Mechanics II	UE 2	Mechanical Engineering:		Numerical Mathematics I									
21													Mechanics II		Mechanical Engineering:		Numerical Mathematics I									
22													Mechanics II		Mechanical Engineering:		Numerical Mathematics I									
22			Mechanics II	UE 2	<b>Mechanical Engineering:</b>		<b>Signals and Systems</b>		Numerical Mathematics I	UE 2			<b>Bachelor Thesis</b>													

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	I
24									
25									
26			<b>Mathematics II</b>		<b>Fundamentals of Materials Science (part 1)</b>				<b>Structural Materials (part 1)</b>
27	<b>Programming in C</b> Programming in C Programming in C	VL 1 PR 1	Linear Algebra II Linear Algebra II Linear Algebra II	VL 2 UE 1 HÜ 1	Fundamentals of Materials Science I Physical and Chemical Basics of Materials Science	VL 2 VL 2			Welding Technology
28			Analysis II	VL 2					
29			Analysis II	HÜ 1	<b>Advanced Mechanical Engineering Design (part 1)</b>				<b>Material Science Laboratory</b>
30	<b>Physics for Engineers (AIW)</b> Physics for Engineers Physics for Engineers	VL 2 UE 1	Analysis II	UE 1	Advanced Mechanical Engineering Design I Advanced Mechanical Engineering Design I	VL 2 HÜ 2			Companion Lecture for Materials Science Laboratory Material Science Laboratory
31									
32									
33									

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.