

# Course of Study General Engineering Science (German program, 7 semester) (Study Cohort w16)

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	Form/hrs/Week	Semester 2	Form/hrs/Week	Semester 3	Form/hrs/Week	Semester 4	Form/hrs/Week	Semester 5	Form/hrs/Week	Semester 6	Form/hrs/Week	Semester 7	Form/hrs/Week				
1	<b>Chemistry</b>	VL 2	<b>Electrical Engineering II: Alternating Current Networks and Basic Devices</b>	VL 2	<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	Technical Thermodynamics II	Team Project Design Methodology	Computer Engineering	Introduction to Management
3														Chemistry II	Technical Thermodynamics II	Mechanical Design Project II	Computer Engineering	Management Tutorial
														Chemistry I	Technical Thermodynamics II			
														Chemistry II	Technical Thermodynamics II			
															Electrical Engineering II: Alternating Current Networks and Basic Devices	Fundamentals of Materials Science (part 2)		
4	<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						
5													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: Metals
6															Analysis III	Advanced Mechanical Engineering Design II	Introduction to Control Systems	Enhanced Fundamentals: Ceramics and Polymers
7															Differential Equations 1	Fluid Dynamics	Enhanced Fundamentals: Ceramics and Polymers	
8															Differential Equations 1	Fluid Mechanics	Enhanced Fundamentals: Ceramics and Polymers	
9															Differential Equations 1	Fluid Mechanics		
10	<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						
11													Linear Algebra I	Technical Thermodynamics I	Mechanics III	Mechanics IV	Measurement Technology for Mechanical and Process Engineers	Fundamentals of Mechanical Properties of Materials
12													Linear Algebra I	Technical Thermodynamics I	Mechanics III	Mechanics IV	Measurement Technology for Mechanical and Process Engineers	
13													Linear Algebra I	Technical Thermodynamics I	Mechanics III	Mechanics IV	Measurement Technology for Mechanical and Process Engineers	
14													Analysis I	Technical Thermodynamics I	Mechanics III	Mechanics IV	Measurement Technology for Mechanical and Process Engineers	
15													Analysis I	Technical Thermodynamics I	Mechanics III	Mechanics IV	Measurement Technology for Mechanical and Process Engineers	
16	<b>Mechanics I (Statics)</b>	VL 2	<b>Mechanics II</b>	VL 2	<b>Mechanical Engineering: Design (part 1)</b>	VL 2	<b>Signals and Systems</b>	VL 3	<b>Numerical Mathematics I</b>	VL 2	<b>Bachelor Thesis</b>							
17												Mechanics I	Mechanics II	Embodiment Design and 3D-CAD	Signals and Systems	Numerical Mathematics I		
18												Mechanics I	Mechanics II		Signals and Systems	Numerical Mathematics I		
19												Mechanics I	Mechanics II		Signals and Systems	Numerical Mathematics I		
20												Mechanics I	Mechanics II		Signals and Systems	Numerical Mathematics I		
21												Mechanics I	Mechanics II		Signals and Systems	Numerical Mathematics I		
22																		
23																		

24			Mechanical Design Project I	TT 3		
25			<b>Fundamentals of Materials Science (part 1)</b>			
26		<b>Mathematics II</b>				<b>Structural Materials (part 1)</b>
27	<b>Programming in C</b>	Linear Algebra II	VL 2	Fundamentals of Materials Science I	VL 2	Welding Technology
	Programming in C	Linear Algebra II	UE 1	Physical and Chemical Basics of Materials Science	VL 2	
	Programming in C	Linear Algebra II	HÜ 1			
		Analysis II	VL 2			
28		Analysis II	HÜ 1			
29	<b>Physics for Engineers (AIW)</b>	Analysis II	UE 1	<b>Advanced Mechanical Engineering Design (part 1)</b>		<b>Material Science Laboratory</b>
30	Physics for Engineers			Advanced Mechanical Engineering Design I	VL 2	Companion Lecture for Materials Science Laboratory
	Physics for Engineers			Advanced Mechanical Engineering Design I	HÜ 2	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.