

# Course of Study General Engineering Science (German program) (Study Cohort w15)

Sample course plan - Bachelor General Engineering Science (German program) (AIWBS)  
Specialisation Electrical Engineering

Legend:

Core qualification Compulsory	Specialisation Compulsory	Focus Compulsory	Thesis Compulsory
Core qualification Elective	Specialisation Elective	Focus Elective Compulsory	Interdisciplinary complement
Compulsory	Compulsory		

LP	Semester 1	FormHrs/wk	Semester 2	FormHrs/wk	Semester 3	FormHrs/wk	Semester 4	FormHrs/wk	Semester 5	FormHrs/wk	Semester 6	FormHrs/wk			
1	<b>Physics for Engineers (part 1)</b>		<b>Electrical Engineering II: Alternating Current Networks and Basic Devices</b>		<b>Technical Thermodynamics II</b>		<b>Theoretical Electrical Engineering I: Time-Independent Fields</b>		<b>Introduction to Control Systems</b>		<b>Foundations of Management</b>				
2	Physics for Engineers	VL 2	Electrical Engineering II: Alternating Current Networks and Basic Devices		Technical Thermodynamics II	VL 2	Theoretical Electrical Engineering I: Time-Independent Fields		Introduction to Control Systems	VL 2	Introduction to Management	VL 4			
3	Physics for Engineers	UE 1			Technical Thermodynamics II	HÜ 1			Introduction to Control Systems	UE 2	Project Entrepreneurship	POL 2			
4					Technical Thermodynamics II	UE 1									
5	<b>Chemistry</b>														
6	Chemistry I	VL 2	<b>Fundamentals of Mechanical Engineering Design</b>		<b>Computer Engineering</b>		<b>Signals and Systems</b>		<b>Theoretical Electrical Engineering II: Time-Dependent Fields</b>		<b>Semiconductor Circuit Design</b>				
7	Chemistry II	VL 2				Computer Engineering		VL 3				Signals and Systems	VL 3	Semiconductor Circuit Design	VL 3
8	Chemistry I	HÜ 1				Computer Engineering		UE 1				Signals and Systems	HÜ 1	Semiconductor Circuit Design	UE 1
9	Chemistry II	HÜ 1													
10															
11	<b>Electrical Engineering I: Direct Current Networks and Electromagnetic Fields</b>		<b>Technical Thermodynamics I</b>		<b>Mathematics III</b>		<b>Electrical Engineering IV: Transmission Lines and Research Seminar</b>		<b>Introduction to Communications and Random Processes</b>		<b>Bachelor Thesis</b>				
12	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	VL 3				Analysis III		VL 2				Transmission Line Theory	VL 2	Introduction to Communications and Random Processes	VL 3
14	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	UE 2				Analysis III		UE 1				Research Seminar Electrical Engineering, Computer Science, Mathematics	SE 2	Introduction to Communications and Random Processes	HÜ 1
15						Differential Equations 1		VL 2				Transmission Line Theory	HÜ 2		
16															
17	<b>Mathematics I</b>		<b>Mechanics II: Mechanics of Materials</b>		<b>Mechanics III (Hydrostatics, Kinematics, Kinetics I)</b>		<b>Electrical Engineering Project Laboratory</b>		<b>Electronic Devices</b>						
18	Linear Algebra I	VL 2				Mechanics III		VL 3				Electrical Engineering Project Laboratory	PR 5	Electronic Devices	VL 3
19	Linear Algebra I	UE 1				Mechanics III		UE 2						Electronic Devices	POL 2
20	Linear Algebra I	HÜ 1				Mechanics III		HÜ 1							
21	Analysis I	VL 2													
22	Analysis I	UE 1													
23	Analysis I	HÜ 1													
24															
25	<b>Mechanics I (Statics)</b>		<b>Mathematics II</b>		<b>Electrical Engineering III: Circuit Theory and Transients</b>		<b>Materials in Electrical Engineering</b>		<b>Measurements: Methods and Data Processing</b>						
26	Mechanics I	VL 2				Mechanics II		VL 2				Materials in Electrical Engineering	VL 2	Measurements: Methods and Data Processing	VL 2
27	Mechanics I	UE 2				Mechanics II		UE 1				Materials in Electrical Engineering	UE 2	Processing	
28	Mechanics I	HÜ 1				Mechanics II		HÜ 1				Electrotechnical Experiments	VL 1	Measurements: Methods and Data Processing	UE 1
29				Analysis II	VL 2				Processing						
30				Analysis II	HÜ 1				EE Experimental Lab	PR 2					
31				Analysis II	UE 1										
32															
33															
34				<b>Programming in C</b>			<b>Mathematics IV</b>								
				Programming in C	VL 1		Complex Functions	VL 2							
							Complex Functions	UE 1							
							Complex Functions	HÜ 1							
							Differential Equations 2	VL 2							
							Differential Equations 2	UE 1							

	Programming in C PR 1	Differential Equations 2 DE 1
35	<b>Physics for Engineers (part 2)</b>	Differential Equations 2 HU 1
36	Physics-Lab for ET/ AIW/ GES PR 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.