

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

Sample course plan A Bachelor General Engineering Science (German program) (AIWBS)  
Specialisation Mechanical Engineering, Focus Aircraft Systems 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>Mechanical Engineering: Design (part 2)</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	VL 3	Technical Thermodynamics II	VL 2	Team Project Design Methodology	POL 2	Introduction to Control Systems	VL 2	Introduction to Management	VL 4
3	Physics for Engineers	UE 1	Electrical Engineering II: Alternating Current Networks and Basic Devices	UE 2	Technical Thermodynamics II	HÜ 1	Mechanical Design Project II	TT 3	Introduction to Control Systems	UE 2	Project Entrepreneurship	POL 2
4			Electrical Engineering II: Alternating Current Networks and Basic Devices		Technical Thermodynamics II	UE 1						
5	<b>Chemistry</b>						<b>Fundamentals of Materials Science (part 2)</b>					
6	Chemistry I	VL 2					Fundamentals of Materials Science II	VL 2				
7	Chemistry II	VL 2										
8	Chemistry I	HÜ 1	<b>Fundamentals of Mechanical Engineering Design</b>		<b>Computer Engineering</b>		<b>Advanced Mechanical Engineering Design (part 2)</b>		<b>Measurement Technology for Mechanical and Process Engineers</b>		<b>Integrated Product Development and Lightweight Design</b>	
9	Chemistry II	HÜ 1	Fundamentals of Mechanical Engineering Design	VL 2	Computer Engineering	VL 3	Advanced Mechanical Engineering Design II	VL 2	Measurement Technology for Mechanical and Process Engineers	VL 2	Integrated Product Development I	VL 2
10			Fundamentals of Mechanical Engineering Design	HÜ 2	Computer Engineering	UE 1	Advanced Mechanical Engineering Design II	HÜ 2	Measurement Technology for Mechanical and Process Engineers	HÜ 1	Development of Lightweight Design Products	VL 2
11	<b>Electrical Engineering I: Direct Current Networks and Electromagnetic Fields</b>						<b>Signals and Systems</b>		Practical Course: Measurement and Control Systems	PR 2	CAE-Team Project	POL 2
12	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	VL 3					Signals and Systems	VL 3				
13	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	UE 2	<b>Technical Thermodynamics I</b>		<b>Mathematics III</b>		Signals and Systems	HÜ 1				
14	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields		Technical Thermodynamics I	VL 2	Analysis III	VL 2			<b>Simulation of Dynamic Systems and Reliability</b>		<b>Aeronautical Systems</b>	
15			Technical Thermodynamics I	HÜ 1	Analysis III	UE 1	<b>Fluid Dynamics</b>		Simulation of Dynamic Systems	VL 2	Air Transportation Systems	VL 2
16			Technical Thermodynamics I	UE 1	Analysis III	HÜ 1	Fluid Mechanics	VL 3	Reliability of Dynamic Systems	VL 2	Fundamentals of Aircraft Systems	VL 2
17	<b>Mathematics I</b>				Differential Equations 1	VL 2	Fluid Mechanics	HÜ 1	Simulation of Dynamic Systems	UE 1	Fundamentals of Aircraft Systems	UE 1
18	Linear Algebra I	VL 2			Differential Equations 1	UE 1			Reliability of Dynamic Systems	UE 1	Air Transportation Systems	HÜ 1
19	Linear Algebra I	UE 1	<b>Mechanics II: Mechanics of Materials</b>		Differential Equations 1	HÜ 1						
20	Linear Algebra I	HÜ 1	Mechanics II	VL 2			<b>Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)</b>		<b>Advanced Mechanical Design Project</b>		<b>Bachelor Thesis</b>	
21	Analysis I	VL 2	Mechanics II	UE 2	<b>Mechanics III (Hydrostatics, Kinematics, Kinetics I)</b>		Mechanics IV	VL 3	Advanced Mechanical Design Project	TT 4		
22	Analysis I	UE 1	Mechanics II	HÜ 2	Mechanics III	VL 3	Mechanics IV	UE 2				
23	Analysis I	HÜ 1			Mechanics III	UE 2	Mechanics IV	HÜ 1				
24					Mechanics III	HÜ 1						
25	<b>Mechanics I (Statics)</b>		<b>Mathematics II</b>									
26	Mechanics I	VL 2	Linear Algebra II	VL 2			<b>Mechanical Engineering: Design (part 1)</b>		<b>Electrical Machines</b>			
27	Mechanics I	UE 2	Linear Algebra II	UE 1			Embodiment Design and 3D-CAD	VL 2	Electrical Machines	VL 3		
28	Mechanics I	HÜ 1	Linear Algebra II	HÜ 1			Mechanical Design Project I	TT 3	Electrical Machines	HÜ 2		
29			Analysis II	VL 2								
30			Analysis II	HÜ 1			<b>Fundamentals of Materials Science (part 1)</b>					
31			Analysis II	UE 1			Fundamentals of Materials Science I	VL 2				
32							Physical and Chemical Basics of	VL 2				
33			<b>Programming in C</b>				Materials Science					

34	Programming in C VL 1 Programming in C PR 1	<b>Advanced Mechanical Engineering Design (part 1)</b>
35	<b>Physics for Engineers (part 2)</b>	Advanced Mechanical Engineering VL 2 Design I
36	Physics-Lab for ET/ AIW/ GES PR 1	Advanced Mechanical Engineering HÜ 2 Design I

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.