

# Course of Study General Engineering Science (German program, 7 semester) (Study Cohort w18)

Legend:

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

Sample course plan B Bachelor General Engineering Science (German program, 7 semester) (AIWBS(7))

Semester 1	Specialisation: Mechanical Engineering	Focus: Energy Systems	Semester 3	Semester 4	Semester 5	Semester 6	Semester 7
	FormHrs/wk	FormHrs/wk	FormHrs/wk	FormHrs/wk	FormHrs/wk	FormHrs/wk	FormHrs/wk
1	<b>Chemistry</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>	<b>Advanced Internship AIW/ ES</b>
2	Chemistry I VL 2	Electrical Engineering II: Alternating Current Networks and Basic Devices VL 3	Technical Thermodynamics II VL 2	Team Project Design Methodology PBL 2	Introduction to Control Systems VL 2	Introduction to Management VL 3	Advanced Internship AIW/ ES: Preparation SE 1
3	Chemistry II VL 2	Current Networks and Basic Devices VL 3	Technical Thermodynamics II HÜ 1	Mechanical Design Project II PBL 3	Introduction to Control Systems GÜ 2	Management Tutorial GÜ 2	Advanced Internship AIW/ ES: Internship-accompanying Seminar SE 1
4	Chemistry I HÜ 1	Electrical Engineering II: Alternating Current Networks and Basic Devices GÜ 2	Technical Thermodynamics II GÜ 1	<b>Fundamentals of Materials Science (part 2)</b>			
5	Chemistry II HÜ 1			Fundamentals of Materials Science II VL 2			
6				<b>Fluid Dynamics</b>			
7	<b>Electrical Engineering I: Direct Current Networks and Electromagnetic Fields</b>	<b>Fundamentals of Mechanical Engineering Design</b>	<b>Mathematics III</b>	Fluid Mechanics VL 3	<b>Measurement Technology for Mechanical Engineers</b>	<b>Advanced Mechanical Engineering Design (part 2)</b>	
8	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields VL 3	Fundamentals of Mechanical Engineering Design VL 2	Analysis III VL 2	Fluid Mechanics HÜ 2	Measurement Technology for Mechanical Engineering VL 2	Advanced Mechanical Engineering Design II VL 2	
9	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields GÜ 2	Fundamentals of Mechanical Engineering Design HÜ 2	Analysis III GÜ 1		Measurement Technology for Mechanical Engineering HÜ 1	Advanced Mechanical Engineering Design II HÜ 2	
10			Differential Equations 1 VL 2		Practical Course: Measurement and Control Systems PR 2	<b>Reciprocating Machinery (part 2)</b>	
11			Differential Equations 1 GÜ 1			Internal Combustion Engines I VL 2	
12			Differential Equations 1 HÜ 1	<b>Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)</b>		Internal Combustion Engines I HÜ 1	
13	<b>Mathematics I</b>	<b>Technical Thermodynamics I</b>		Mechanics IV VL 3	<b>Advanced Mechanical Engineering Design (part 1)</b>	<b>Fundamentals of Production and Quality Management</b>	
14	Linear Algebra I VL 2	Technical Thermodynamics I VL 2	<b>Mechanics III (Hydrostatics, Kinematics, Kinetics I)</b>	Mechanics IV GÜ 2	Advanced Mechanical Engineering Design I VL 2	Production Process Organization VL 2	
15	Linear Algebra I GÜ 1	Technical Thermodynamics I HÜ 1	Mechanics III VL 3	Mechanics IV HÜ 1	Advanced Mechanical Engineering Design I HÜ 2	Quality Management VL 2	
16	Linear Algebra I HÜ 1	Technical Thermodynamics I GÜ 1	Mechanics III GÜ 2		<b>Heat Transfer</b>		
17	Analysis I VL 2		Mechanics III HÜ 1	<b>Signals and Systems</b>	Heat Transfer VL 3		
18	Analysis I GÜ 1			Signals and Systems VL 3	Heat Transfer HÜ 2		
19	Analysis I HÜ 1	<b>Mechanics II: Mechanics of Materials</b>		Signals and Systems GÜ 2		<b>Bachelor Thesis</b>	
20		Mechanics II VL 2	<b>Computer Engineering</b>		<b>Reciprocating Machinery (part 1)</b>		
21	<b>Mechanics I (Statics)</b>	Mechanics II GÜ 2	Computer Engineering VL 3		Fundamentals of Reciprocating Engines and Turbomachinery - Part Reciprocating Engines VL 1	<b>Renewables and Energy Systems</b>	
22	Mechanics I VL 2	Mechanics II HÜ 2	Computer Engineering GÜ 1		Fundamentals of Reciprocating Engines and Turbomachinery - Part Reciprocating Engines HÜ 1	Renewable Energy VL 2	
23	Mechanics I GÜ 2				<b>Gas and Steam Power Plants</b>	Energy Systems and Energy Industry VL 2	
24	Mechanics I HÜ 1				Gas and Steam Power Plants VL 3	Power Industry VL 1	
25		<b>Mathematics II</b>			Gas and Steam Power Plants HÜ 1	Renewable Energy GÜ 1	
26		Linear Algebra II VL 2	<b>Mechanical Engineering: Design (part 1)</b>				
27	<b>Programming in C</b>	Linear Algebra II GÜ 1	Embodiment Design and 3D-CAD VL 2				
28	Programming in C VL 1	Linear Algebra II HÜ 1	Mechanical Design Project I PBL 3				
29	Programming in C PR 1	Analysis II VL 2					
30	<b>Physics for Engineers (AIW)</b>	Analysis II HÜ 1	<b>Fundamentals of Materials Science (part 1)</b>				
31	Physics for Engineers VL 2	Analysis II GÜ 1	Fundamentals of Materials Science I VL 2				
32	Physics for Engineers GÜ 1		Physical and Chemical Basics of Materials Science VL 2				
33			Science				

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.

