

# 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 Product Development and Production

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/wk	Semester 2	FormHrs/wk	Semester 3	FormHrs/wk	Semester 4	FormHrs/wk	Semester 5	FormHrs/wk	Semester 6	FormHrs/wk	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>Integrated Product Development and Lightweight Design</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	Integrated Product Development I	VL 2	
9														Electrical Engineering I: Direct Current Networks and Electromagnetic Fields		Fundamentals of Mechanical Engineering Design		Analysis III	HÜ 1	Advanced Mechanical Engineering Design II		Introduction to Control Systems		Development of Lightweight Design Products	VL 2	
10														Electrical Engineering I: Direct Current Networks and Electromagnetic Fields		Fundamentals of Mechanical Engineering Design		Differential Equations 1	VL 2	<b>Production Engineering (part 2)</b>				CAE-Team Project	PBL2	
11														Electrical Engineering I: Direct Current Networks and Electromagnetic Fields		Fundamentals of Mechanical Engineering Design		Differential Equations 1	UE 1	Production Engineering II	VL 2					
12														Electrical Engineering I: Direct Current Networks and Electromagnetic Fields		Fundamentals of Mechanical Engineering Design		Differential Equations 1	HÜ 1	Production Engineering II	HÜ 1					
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>Fluid Dynamics</b>	VL 3	<b>Measurement Technology for Mechanical and Process Engineers</b>	VL 2	<b>Enhanced Fundamentals of Materials Science</b>	VL 2														
14														Linear Algebra I	UE 1	Technical Thermodynamics I	UE 1	Mechanics III	UE 2	Fluid Mechanics	HÜ 2	Measurement Technology for Mechanical and Process Engineers		Enhanced Fundamentals: Metals		
15														Linear Algebra I	HÜ 1	Technical Thermodynamics I	HÜ 1	Mechanics III	VL 3	Fluid Mechanics		Measurement Technology for Mechanical and Process Engineers		Enhanced Fundamentals: Ceramics and Polymers	VL 2	
16														Linear Algebra I		Technical Thermodynamics I		Mechanics III	UE 2	<b>Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)</b>		Measurement Technology for Mechanical and Process Engineers		Enhanced Fundamentals: Ceramics and Polymers		
17														Linear Algebra I		Technical Thermodynamics I		Mechanics III	HÜ 1	Mechanics IV	VL 3	Measurement Technology for Mechanical and Process Engineers	HÜ 1	Enhanced Fundamentals: Ceramics and Polymers	HÜ 1	
18														Analysis I	UE 1	Technical Thermodynamics I	UE 1	Mechanics III	HÜ 1	Mechanics IV	UE 2	Measurement Technology for Mechanical and Process Engineers				
19	Analysis I	HÜ 1	Technical Thermodynamics I	HÜ 1	Mechanics III		Mechanics IV	HÜ 1	Practical Course: Measurement and Control Systems	PR 2																
20			<b>Mechanics II: Mechanics of</b>						<b>Advanced Mechanical</b>		<b>Electrical Machines and</b>		<b>Bachelor Thesis</b>													

21	<b>Mechanics I (Statics)</b> Mechanics I VL 2 Mechanics I UE 2 Mechanics I HÜ 1	<b>Materials</b> Mechanics II VL 2 Mechanics II UE 2 Mechanics II HÜ 2	<b>Mechanical Engineering: Design (part 1)</b> Embodiment Design and 3D-CAD VL 2 Mechanical Design Project I PBL3		<b>Design Project</b> Advanced Mechanical Design Project PBL4	<b>Actuators</b> Electrical Machines and Actuators VL 3 Electrical Machines and Actuators HÜ 2
22						
23						
24						
25	<b>Programming in C</b> Programming in C VL 1 Programming in C PR 1	<b>Mathematics II</b> Linear Algebra II VL 2 Linear Algebra II UE 1 Linear Algebra II HÜ 1 Analysis II VL 2 Analysis II HÜ 1	<b>Fundamentals of Materials Science (part 1)</b> Fundamentals of Materials Science I VL 2 Physical and Chemical Basics of Materials Science VL 2		<b>Production Technology</b> Forming and Cutting Technology VL 2 Forming and Cutting Technology HÜ 1 Fundamentals of Machine Tools VL 2 Fundamentals of Machine Tools HÜ 1	
26						
27						
28						
29	<b>Physics for Engineers (AIW)</b> Physics for Engineers VL 2 Physics for Engineers UE 1	Analysis II UE 1	<b>Advanced Mechanical Engineering Design (part 1)</b> Advanced Mechanical Engineering Design I VL 2 Advanced Mechanical Engineering Design I HÜ 2			
30						
31						
32			<b>Production Engineering (part 1)</b> Production Engineering I VL 2 Production Engineering I HÜ 1			
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.