

Course of Study General Engineering Science (German program, 7 semester) (Study Cohort w20)

Sample course plan C Bachelor General Engineering Science (German program, 7 semester) (AIWBS(7))
Specialisation Mechanical Engineering, Focus Mechatronics

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	Semester 2	Form	Semester 3	Form	Semester 4	Form	Semester 5	Form	Semester 6	Form	Semester 7	Form
1	Chemistry Chemistry I+II Chemistry I+II	VL 4	Electrical Engineering II: Alternating Current Networks and Basic Devices Electrical Engineering II: Alternating Current Networks and Basic Devices Electrical Engineering II: Alternating Current Networks and Basic Devices	VL 3	Technical Thermodynamics II Technical Thermodynamics II Technical Thermodynamics II	VL 2	Signals and Systems Signals and Systems Signals and Systems	VL 3	Introduction to Control Systems Introduction to Control Systems Introduction to Control Systems	VL 2	Foundations of Management Introduction to Management Management Tutorial	VL 3	Advanced Internship AIW/GES	
2		HÜ 2		UE 2		HÜ 1		UE 2		UE 2		UE 2		
3														
4														
5														
6														
7	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields Electrical Engineering I: Direct Current Networks and Electromagnetic Fields Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	VL 3	Fundamentals of Mechanical Engineering Design Fundamentals of Mechanical Engineering Design Fundamentals of Mechanical Engineering Design	VL 2	Mathematics III Analysis III Analysis III Analysis III	VL 2	Fluid Dynamics Fluid Mechanics Fluid Mechanics	VL 3	Measurement Technology for Mechanical Engineers Measurement Technology for Mechanical Engineering Measurement Technology for Mechanical Engineering Practical Course: Measurement and Control Systems	VL 2	Electrical Machines and Actuators Electrical Machines and Actuators Electrical Machines and Actuators	VL 3		
8		UE 2		UE 1		UE 1		UE 1		UE 1		UE 1		
9														
10														
11														
12														
13	Mathematics I Linear Algebra I Linear Algebra I Linear Algebra I Analysis I Analysis I Analysis I	VL 2	Technical Thermodynamics I Technical Thermodynamics I Technical Thermodynamics I	VL 2	Mechanics III (Dynamics) Mechanics III Mechanics III Mechanics III	VL 3	Mechanics IV (Oscillations, Analytical Mechanics, Multibody Systems, Numerical Mechanics) Mechanics IV Mechanics IV Mechanics IV	VL 3	Electrical Engineering III: Circuit Theory and Transients Circuit Theory Circuit Theory	VL 3	Semiconductor Circuit Design Semiconductor Circuit Design Semiconductor Circuit Design	VL 3		
14		UE 1		HÜ 1		UE 2		UE 2		UE 2		UE 2		
15		HÜ 1		HÜ 1		HÜ 1		HÜ 1		HÜ 1		HÜ 1		
16		VL 2		UE 1		UE 2		UE 2		UE 2		UE 2		
17		UE 1		UE 1		UE 1		UE 1		UE 1		UE 1		
18		HÜ 1		HÜ 1		HÜ 1		HÜ 1		HÜ 1		HÜ 1		
19	Mechanics I (Statics) Mechanics I Mechanics I Mechanics I	VL 2	Mechanics II: Mechanics of Materials Mechanics II Mechanics II Mechanics II	VL 2	Advanced Mechanical Engineering Design (part 1) Advanced Mechanical Engineering Design I Advanced Mechanical Engineering Design I	VL 2	Advanced Mechanical Engineering Design (part 2) Advanced Mechanical Engineering Design II Advanced Mechanical Engineering Design II	VL 3	Computer Engineering Computer Engineering Computer Engineering	VL 3	Mathematics IV Complex Functions Complex Functions Differential Equations	VL 2	Bachelor Thesis	
20		UE 2		UE 2		UE 2		UE 2		UE 2		UE 2		
21		UE 2		HÜ 2		HÜ 2		HÜ 2		HÜ 2		HÜ 2		
22		HÜ 1		HÜ 1		HÜ 2		HÜ 2		HÜ 2		HÜ 2		

23			Engineering Design I	Mechanical Engineering: Design (part 2)		2	
24			Mechanical Engineering: Design (part 1) Embodiment Design and 3D-CAD VL 2	Team Project Design Methodology PBL2 Mechanical Design Project II PBL3		2	Differential Equations HÜ 1
25		Mathematics II	Mechanical Design Project I PBL3	Fundamentals of Materials Science (part 2) Fundamentals of Materials Science II VL 2	Simulation and Design of Mechatronic Systems Simulation and Design of Mechatronic Systems VL 2 Simulation and Design of Mechatronic Systems HÜ 1 Simulation and Design of Mechatronic Systems PR 1		
26	Linear Algebra II VL 2 Linear Algebra II UE 1 Linear Algebra II HÜ 1						
27	Programming in C Programming in C VL 1 Programming in C PR 1		Analysis II VL 2 Analysis II HÜ 1 Analysis II UE 1	Fundamentals of Materials Science (part 1) Fundamentals of Materials Science I VL 2 Physical and Chemical Basics of Materials Science VL 2			
28							
29		Physics for Engineers (AIW) Physics for Engineers VL 2 Physics for Engineers UE 1					
30							
31							
32							
Non-technical 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.