

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 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	VL 2	Electrical Engineering II: Alternating Current Networks and Basic Devices	VL 3	Technical Thermodynamics II	VL 2	Mechanical Engineering: Design (part 2)	PBL2	Computer Engineering	VL 3	Foundations of Management	VL 3	Advanced Internship GES													
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	PBL2	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	PBL3	Computer Engineering	UE 1	Management Tutorial	HÜ 2
4															Chemistry I	HÜ 1	Electrical Engineering II: Alternating Current Networks and Basic Devices	HÜ 1	Technical Thermodynamics II	HÜ 1	Fundamentals of Materials Science (part 2)					
5															Chemistry II	HÜ 1	Electrical Engineering II: Alternating Current Networks and Basic Devices	HÜ 1	Technical Thermodynamics II	HÜ 1	Fundamentals of Materials Science II	VL 2				
6																										
7	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	VL 3	Fundamentals of Mechanical Engineering Design	VL 2	Mathematics III	VL 2	Advanced Mechanical Engineering Design (part 2)	VL 2	Introduction to Control Systems	VL 2	Semiconductor Circuit Design	VL 3														
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	Semiconductor Circuit Design	UE 1	
9														Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	UE 2	Fundamentals of Mechanical Engineering Design	UE 2	Analysis III	HÜ 1	Advanced Mechanical Engineering Design II	HÜ 2	Introduction to Control Systems	UE 2	Semiconductor Circuit Design	UE 1	
10														Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	UE 2	Fundamentals of Mechanical Engineering Design	UE 2	Differential Equations 1	VL 2	Fluid Dynamics						
11														Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	UE 2	Fundamentals of Mechanical Engineering Design	UE 2	Differential Equations 1	UE 1	Fluid Mechanics	VL 3					
12														Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	UE 2	Fundamentals of Mechanical Engineering Design	UE 2	Differential Equations 1	HÜ 1	Fluid Mechanics	HÜ 2					
13	Mathematics I	VL 2	Technical Thermodynamics I	VL 2	Mechanics III (Hydrostatics, Kinematics, Kinetics I)	VL 3	Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)	VL 3	Measurement Technology for Mechanical and Process Engineers	VL 2	Mathematics IV	VL 2														
14														Linear Algebra I	UE 1	Technical Thermodynamics I	UE 1	Mechanics III	UE 2	Mechanics IV	UE 2	Measurement Technology for Mechanical and Process Engineers	HÜ 1	Complex Functions	UE 1	
15														Linear Algebra I	UE 1	Technical Thermodynamics I	UE 1	Mechanics III	UE 2	Mechanics IV	UE 2	Measurement Technology for Mechanical and Process Engineers	HÜ 1	Complex Functions	HÜ 1	
16														Linear Algebra I	HÜ 1	Technical Thermodynamics I	HÜ 1	Mechanics III	HÜ 1	Mechanics IV	HÜ 1	Measurement Technology for Mechanical and Process Engineers	HÜ 1	Differential Equations 2	VL 2	
17														Linear Algebra I	HÜ 1	Technical Thermodynamics I	HÜ 1	Mechanics III	HÜ 1	Mechanics IV	HÜ 1	Measurement Technology for Mechanical and Process Engineers	HÜ 1	Differential Equations 2	UE 1	
18														Analysis I	VL 2	Technical Thermodynamics I	UE 1	Mechanics III	HÜ 1	Mechanics IV	HÜ 1	Measurement Technology for Mechanical and Process Engineers	HÜ 1	Differential Equations 2	HÜ 1	
19																										
20			Mechanics II: Mechanics of Materials						Electrical Engineering III: Circuit Theory and Transients		Electrical Machines and Actuators		Bachelor Thesis													
21			Mechanics II	VL 2				Circuit Theory	VL 3	Electrical Machines and Actuators	VL 3															
22	Mechanics I (Statics)		Mechanics II	UE 2	Mechanical Engineering:		Signals and Systems																			

23	Mechanics I Mechanics I Mechanics I	VL 2 UE 2 HÜ 1	Mechanics II	HÜ 2	Design (part 1) Embodiment Design and 3D-CAD Mechanical Design Project I	VL 2 PBL3	Signals and Systems Signals and Systems	VL 3 UE 2	Circuit Theory	UE 2	Electrical Machines and Actuators	HÜ 2
24												
25												
26			Mathematics II									
27	Programming in C Programming in C Programming in C	VL 1 VL 1 PR 1	Linear Algebra II Linear Algebra II Linear Algebra II	VL 2 UE 1 HÜ 1	Fundamentals of Materials Science (part 1) Fundamentals of Materials Science I Physical and Chemical Basics of Materials Science	VL 2 VL 2			Simulation and Design of Mechatronic Systems Simulation and Design of Mechatronic Systems Simulation and Design of Mechatronic Systems Simulation and Design of Mechatronic Systems	VL 2 HÜ 1 PR 1		
28			Analysis II	VL 2								
29			Analysis II	HÜ 1	Advanced Mechanical Engineering Design (part 1) Advanced Mechanical Engineering Design I Advanced Mechanical Engineering Design I	VL 2 HÜ 2						
30	Physics for Engineers (AIW) Physics for Engineers Physics for Engineers	VL 2 UE 1	Analysis II	UE 1								
31												
32												

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.