

Course of Study General Engineering Science (German program) (Study Cohort w14)

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

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	Physics for Engineers (part 1)		Electrical Engineering II: Alternating Current Networks and Basic Devices		Technical Thermodynamics II		Mechanical Engineering: Design (part 2)		Introduction to Control Systems		Foundations of Management	
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		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	UE 2	Technical Thermodynamics II	UE 1						
5	Chemistry						Fundamentals of Materials Science (part 2)					
6	Chemistry I	VL 2					Fundamentals of Materials Science II	VL 2				
7	Chemistry II	VL 2										
8	Chemistry I	HÜ 1	Fundamentals of Mechanical Engineering Design		Computer Engineering		Advanced Mechanical Engineering Design (part 2)		Measurement Technology for Mechanical and Process Engineers		Semiconductor Circuit Design	
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	Semiconductor Circuit Design	VL 3
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	Semiconductor Circuit Design	UE 1
11	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields						Signals and Systems		Measurement Technology for Mechanical and Process Engineers	PR 2		
12	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	VL 3					Signals and Systems	VL 3	Practical Course: Measurement and Control Systems			
13	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	UE 2	Technical Thermodynamics I		Mathematics III		Signals and Systems	HÜ 1				
14	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields		Technical Thermodynamics I	VL 2	Analysis III	VL 2			Simulation of Dynamic Systems and Reliability		Mathematics IV	
15			Technical Thermodynamics I	HÜ 1	Analysis III	UE 1	Fluid Dynamics		Simulation of Dynamic Systems	VL 2	Complex Functions	VL 2
16			Technical Thermodynamics I	UE 1	Analysis III	HÜ 1	Fluid Mechanics	VL 3	Reliability of Dynamic Systems	VL 2	Complex Functions	UE 1
17	Mathematics I				Differential Equations 1	VL 2	Fluid Mechanics	HÜ 1	Simulation of Dynamic Systems	UE 1	Complex Functions	HÜ 1
18	Linear Algebra I	VL 2			Differential Equations 1	UE 1			Reliability of Dynamic Systems	UE 1	Differential Equations 2	VL 2
19	Linear Algebra I	UE 1	Mechanics II: Mechanics of Materials		Differential Equations 1	HÜ 1			Electrical Engineering III: Circuit Theory and Transients		Differential Equations 2	UE 1
20	Linear Algebra I	HÜ 1	Mechanics II	VL 2			Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)		Circuit Theory	VL 3	Differential Equations 2	HÜ 1
21	Analysis I	VL 2	Mechanics II	UE 2	Mechanics III (Hydrostatics, Kinematics, Kinetics I)		Mechanics IV	VL 3	Circuit Theory	UE 2		
22	Analysis I	UE 1			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	Mechanics I (Statics)		Mathematics II				Electrical Machines					
26	Mechanics I	VL 2	Linear Algebra II	VL 2			Electrical Machines	VL 3				
27	Mechanics I	UE 2	Linear Algebra II	UE 1	Mechanical Engineering: Design (part 1)		Electrical Machines	HÜ 2				
28	Mechanics I	HÜ 1	Linear Algebra II	HÜ 1	Embodiment Design and 3D-CAD	VL 2						
29			Analysis II	VL 2	Mechanical Design Project I	TT 3						
30			Analysis II	HÜ 1			Fundamentals of Materials Science (part 1)					
31			Analysis II	UE 1			Fundamentals of Materials Science I	VL 2				
32							Physical and Chemical Basics of	VL 2				
33			Programming in C		Materials Science							

34	Programming in C VL 1 Programming in C PR 1	Advanced Mechanical Engineering Design (part 1)
35	Physics for Engineers (part 2)	Advanced Mechanical Engineering VL 2 Design I
36	Physics-Lab for ET/IW-Engineers 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.