

Course of Study General Engineering Science (German program, 7 semester) (Study Cohort w17)

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

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	Introduction to Control Systems	VL 2	Foundations of Management	VL 3	Advanced Internship AIW/ 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	UE 2	Introduction to Management	HÜ 2				
3															Chemistry II	HÜ 1	Electrical Engineering II: Alternating Current Networks and Basic Devices	UE 2	Technical Thermodynamics II	UE 1	Mechanical Design Project II	VL 2	Introduction to Management	VL 2				
4															Chemistry I	UE 2	Electrical Engineering II: Alternating Current Networks and Basic Devices	HÜ 2	Technical Thermodynamics II	HÜ 1	Fundamentals of Materials Science (part 2)	VL 2	Measurement Technology for Mechanical and Process Engineers	HÜ 1	Advanced Mechanical Engineering Design (part 2)	VL 2	Advanced Mechanical Engineering Design II	HÜ 2
5															Chemistry II	UE 2	Electrical Engineering II: Alternating Current Networks and Basic Devices	HÜ 2	Technical Thermodynamics II	HÜ 1								
6																												
7	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	VL 3	Fundamentals of Mechanical Engineering Design	VL 2	Mathematics III	VL 2	Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)	VL 3	Measurement Technology for Mechanical and Process Engineers	VL 2	Advanced Mechanical Engineering Design (part 2)	VL 2	Advanced Mechanical Engineering Design (part 2)	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	Fluid Mechanics	HÜ 2	Measurement Technology for Mechanical and Process Engineers	HÜ 1	Advanced Mechanical Engineering Design II	HÜ 2		
9															Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	UE 2	Fundamentals of Mechanical Engineering Design	HÜ 2	Analysis III	HÜ 1	Fluid Mechanics	HÜ 2	Measurement Technology for Mechanical and Process Engineers	HÜ 1	Advanced Mechanical Engineering Design II	HÜ 2		
10															Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	UE 2	Fundamentals of Mechanical Engineering Design	HÜ 2	Differential Equations 1	UE 1	Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)	VL 3	Measurement Technology for Mechanical and Process Engineers	HÜ 1	Reciprocating Machinery (part 2)	VL 2	Internal Combustion Engines I	HÜ 1
11															Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	UE 2	Fundamentals of Mechanical Engineering Design	HÜ 2	Differential Equations 1	HÜ 1								
12																												
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	Advanced Mechanical Engineering Design (part 1)	VL 2	Advanced Materials	VL 2	Advanced Materials	VL 2														
14															Linear Algebra I	UE 1	Technical Thermodynamics I	HÜ 1	Mechanics III (Hydrostatics, Kinematics, Kinetics I)	VL 3	Mechanics IV	UE 2	Advanced Mechanical Engineering Design I	HÜ 2	Advanced Materials Design	HÜ 2		
15															Linear Algebra I	HÜ 1	Technical Thermodynamics I	HÜ 1	Mechanics III (Hydrostatics, Kinematics, Kinetics I)	UE 1	Mechanics IV	HÜ 1	Advanced Mechanical Engineering Design I	HÜ 2	Advanced Materials Design	HÜ 2		
16															Linear Algebra I	UE 1	Technical Thermodynamics I	HÜ 1	Mechanics III (Hydrostatics, Kinematics, Kinetics I)	UE 1	Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)	VL 3	Heat Transfer	VL 3	Advanced Materials	VL 2	Advanced Materials	VL 2
17															Analysis I	UE 1	Technical Thermodynamics I	UE 1	Mechanics III (Hydrostatics, Kinematics, Kinetics I)	UE 2								
18															Analysis I	HÜ 1	Technical Thermodynamics I	UE 1	Mechanics III (Hydrostatics, Kinematics, Kinetics I)	HÜ 1	Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)	VL 3	Heat Transfer	HÜ 2	Advanced Materials	VL 2	Advanced Materials	VL 2
19	Analysis I	HÜ 1	Technical Thermodynamics I	UE 1	Mechanics III (Hydrostatics, Kinematics, Kinetics I)	HÜ 1	Signals and Systems	VL 3	Heat Transfer	HÜ 2	Advanced Materials Design	HÜ 2																
20																												
21	Mechanics I (Statics)	VL 2	Mechanics II	VL 2	Computer Engineering	VL 3	Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)	VL 3	Advanced Mechanical Engineering Design (part 1)	VL 2	Renewables and Energy Systems	VL 2	Bachelor Thesis															
22															Mechanics I	UE 2	Mechanics II	UE 2	Computer Engineering	VL 3	Signals and Systems	UE 2	Advanced Mechanical Engineering Design I	HÜ 2	Renewable Energy	VL 2		

23	Mechanics I Mechanics I	UE 2 HÜ 1	Mechanics II	HÜ 2	Computer Engineering UE 1		(part 1) Fundamentals of Reciprocating Engines and Turbomachinery - Part Reciprocating Engines Fundamentals of Reciprocating Engines and Turbomachinery - Part Reciprocating Engines	VL 1 HÜ 1	Energy Systems and Energy Industry Power Industry Renewable Energy	VL 2 VL 1 UE 1	
24											
25											
26			Mathematics II								
27			Linear Algebra II	VL 2							
28	Programming in C Programming in C Programming in C	VL 1 PR 1	Linear Algebra II Linear Algebra II Analysis II	UE 1 HÜ 1 VL 2	Mechanical Engineering: Design (part 1) Embodiment Design and 3D-CAD	VL 2		Computational Fluid Dynamics I Computational Fluid Dynamics I	VL 2 HÜ 2		
29	Physics for Engineers (AIW)		Analysis II Analysis II	HÜ 1 UE 1	Mechanical Design Project I	PBL3					
30	Physics for Engineers	VL 2									
31	Physics for Engineers	UE 1									
32					Fundamentals of Materials Science (part 1)						
33					Fundamentals of Materials Science I Physical and Chemical Basics of Materials Science	VL 2 VL 2					
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.