

Course of Study General Engineering Science (German program, 7 semester) (Study Cohort w16)

Sample course plan A 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/hrs/Week	Semester 2	Form/hrs/Week	Semester 3	Form/hrs/Week	Semester 4	Form/hrs/Week	Semester 5	Form/hrs/Week	Semester 6	Form/hrs/Week	Semester 7	Form/hrs/Week												
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 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	TT 3	Introduction to Control Systems	UE 2	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		Introduction to Control Systems		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		Fundamentals of Materials Science (part 2)	VL 2				
6															Chemistry II		Electrical Engineering II: Alternating Current Networks and Basic Devices		Technical Thermodynamics II		Fundamentals of Materials Science (part 2)					
7	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	VL 3	Fundamentals of Mechanical Engineering Design	VL 2	Mathematics III	VL 2	Fluid Mechanics	VL 3	Measurement Technology for Mechanical and Process Engineers	VL 2	Advanced Mechanical Engineering Design (part 2)	VL 2														
8														Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	HÜ 2	Analysis III	UE 1	Fluid Mechanics	HÜ 2	Measurement Technology for Mechanical and Process Engineers		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	Measurement Technology for Mechanical and Process Engineers		Advanced Mechanical Engineering Design II	HÜ 2			
10														Electrical Engineering I: Direct Current Networks and Electromagnetic Fields		Fundamentals of Mechanical Engineering Design		Differential Equations 1	VL 2	Measurement Technology for Mechanical and Process Engineers		Advanced Mechanical Engineering Design II				
11														Electrical Engineering I: Direct Current Networks and Electromagnetic Fields		Fundamentals of Mechanical Engineering Design		Differential Equations 1	UE 1	Measurement Technology for Mechanical and Process Engineers	HÜ 1	Reciprocating Machinery (part 2)				
12														Electrical Engineering I: Direct Current Networks and Electromagnetic Fields		Fundamentals of Mechanical Engineering Design		Differential Equations 1	HÜ 1	Practical Course: Measurement and Control Systems	PR 2	Internal Combustion Engines I	VL 2			
13	Mathematics I	VL 2	Technical Thermodynamics I	VL 2	Mechanics III (Hydrostatics, Kinematics, Kinetics I)	VL 3	Mechanics IV	VL 3	Advanced Mechanical Engineering Design (part 1)	VL 2	Electrical Machines	VL 3														
14														Linear Algebra I	UE 1	Technical Thermodynamics I	HÜ 1	Mechanics III	VL 3	Mechanics IV	UE 2	Advanced Mechanical Engineering Design I	HÜ 2	Electrical Machines	HÜ 2	
15														Linear Algebra I	HÜ 1	Technical Thermodynamics I	UE 1	Mechanics III	UE 2	Mechanics IV	HÜ 1	Advanced Mechanical Engineering Design I		Electrical Machines		
16														Linear Algebra I	VL 2	Technical Thermodynamics I	UE 1	Mechanics III	UE 2	Mechanics IV	HÜ 1	Advanced Mechanical Engineering Design I		Electrical Machines		
17														Analysis I	UE 1	Technical Thermodynamics I		Mechanics III	HÜ 1							
18														Analysis I	HÜ 1	Technical Thermodynamics I		Mechanics III	HÜ 1							
19	Mechanics I (Statics)	VL 2	Mechanics II: Mechanics of Materials	VL 2	Computer Engineering	VL 3	Signals and Systems	VL 3	Heat Transfer	VL 3	Renewables and Energy Systems	VL 2														
20														Mechanics I	UE 2	Mechanics II	UE 2	Computer Engineering	VL 3	Signals and Systems	HÜ 1	Heat Transfer	HÜ 2	Renewable Energy	VL 2	
21														Mechanics I	UE 2	Mechanics II	HÜ 2	Computer Engineering	UE 1	Signals and Systems	HÜ 1	Heat Transfer		Energy Systems and Energy Industry	VL 2	
22														Mechanics I		Mechanics II		Computer Engineering						Power Industry	VL 1	
23														Mechanics I		Mechanics II		Computer Engineering								
24														Mechanics I	HÜ 1	Mechanics II		Computer Engineering								

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