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

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

Legenc:

Core qualification Compulsory

Specialisation Compulsory

Focus Compulsory

Thesis Compulsory

Core qualification Elective

Specialisation Elective

Compulsory

Focus Elective Compulsory

Interdisciplinary complement

LP	Semester 1 Fo	or iH rs/	Welemester 2 Formers	/wSwemester 3 F	ormirs	/wSemester 4	For iti rs/	Welemester 5 Formilis	/wSiemester 6 For	rılmirs/wSkemes	ster 7 Formitrs/wk
1 2 3 4 5	Chemistry II VI Chemistry I HI	L 2 L 2 IÜ 1	Electrical Engineering II: Alternating Current Networks and Basic Devices Electrical Engineering II: VL 3 Alternating Current Networks and Basic Devices Electrical Engineering II: UE 2 Alternating Current Networks and Basic Devices	Thermodynamics II Technical H Thermodynamics II		Methodology Mechanical Design Project II Fundamentals of Materi Science (part 2) Fundamentals of Materials Science II	PBL2	Introduction to Control Systems Introduction to Control VL 2 Systems Introduction to Control UE 2 Systems	Foundations of Manageme Introduction to VL Management Management Tutorial HÜ	3	nced Internship GES
7 8 9 10 11 12	Electrical Engineering I: Direct Current Networks a Electromagnetic Fields Electrical Engineering I: VI Direct Current Networks and Electromagnetic Fields Electrical Engineering I: UI Direct Current Networks and Electromagnetic Fields	L 3	Fundamentals of Mechanical Engineering Design Fundamentals of VL 2 Mechanical Engineering Design Fundamentals of HÜ 2 Mechanical Engineering Design	Analysis III L Analysis III H Differential Equations 1	/L 2 JE 1 HÜ 1 /L 2 JE 1 HÜ 1	Mechanics IV (Kinetics Oscillations, Analytical Mechanics, Multibody Systems)	VL 3 HÜ 2 III,	Measurement Technology for Mechanical and Process Engineers Measurement Technology for Mechanical and Process Engineers Measurement Technology for Mechanical and Process Engineers Practical Course: PR 2 Measurement and Control Systems	Advanced Mechanical Engineering Design (part Advanced Mechanical Engineering Design II Advanced Mechanical Engineering Design II Reciprocating Machinery (part 2) Internal Combustion Engines I Internal Combustion Engines I	2	
13 14 15 16 17 18 19 20 21 22	Linear Algebra I UI Linear Algebra I HI Analysis I VI Analysis I UI Analysis I HI Mechanics I (Statics)	L 2 E 1 Ü 1 L 2 E 1 Ü 1	Technical Thermodynamics I Technical VL 2 Thermodynamics I Technical HÜ 1 Thermodynamics I Technical UE 1 Thermodynamics I Mechanics II: Mechanics of Materials Mechanics II VL 2 Mechanics II UE 2	Mechanics III L Mechanics III F	ics, /L 3 JE 2 HÜ 1	Mechanics IV Mechanics IV Signals and Systems Signals and Systems	VL 3 UE 2 HÜ 1	Advanced Mechanical Engineering Design (part 1) Advanced Mechanical Engineering Design I Advanced Mechanical Engineering Design I Heat Transfer	Advanced Materials Advanced Materials Characterization Advanced Materials Design Advanced Materials Design Renewables and Energy Systems Renewable Energy VL	2 Bache	elor Thesis
23	Mechanics I UI	E 2	Mechanics II HÜ 2		JE 1			(part 1) Fundamentals of VL 1 Reciprocating Engines	Energy Systems and VL Energy Industry Power Industry VL		

					and Turbomachinery - Part Reciprocating Engines Fundamentals of Reciprocating Engines and Turbomachinery - Part Reciprocating Engines	HÜ 1	Renewable Energy L	JE 1
4					Computational Fluid			
25		Mathematics II			Dynamics I			
6 7		Linear Algebra II	VL 2			VL 2		
	Programming in C	Linear Algebra II	UE 1	Mechanical Engineering:	Dynamics I			
	Programming in C VL 1	Linear Algebra II	HÜ 1	Design (part 1)	Computational Fluid Dynamics I	HÜ 2		
	Programming in C PR 1	Analysis II	VL 2	Embodiment Design and VL 2 3D-CAD	Dynamics 1			
	Physics for Engineers (AIW)	Analysis II	HÜ 1	Mechanical Design TT 3				
	Physics for Engineers VL 2	Analysis II	UE 1	Project I				
	Physics for Engineers UE 1			Fundamentals of Materials				
	,			Science (part 1)				
				Fundamentals of VL 2				
				Materials Science I				
				Physical and Chemical VL 2				
				Basics of Materials Science				

The choice of courses from the catalogue is flexible (depends on the semestral work load), provided the necessary number of required credits is reached.