Course of Study General Engineering Science (German program) (Study Cohort w15)

Sample course plan - Bachelor General Engineering Science (German program) (AIWBS) Specialisation Biomedical Engineering

Legend:

Core qualification Compulsory

Core qualification Elective

Specialisation Elective

Compulsory

Compulsory

Compulsory

Compulsory

Compulsory

Compulsory

Compulsory

Compulsory

Compulsory

LP	Semester 1 For	rmHrs/wk	Semester 2 FormHrs/w	k Semester 3 FormHrs	lrs/wk	Semester 4 FormHrs/wk	Semester 5 FormHrs/w	k Semester 6	FormHrs/wk
1	Physics for Engineers (part 1)		Electrical Engineering II: Alternating Current	Technical Thermodynamics II		Fundamentals of Materials Science (part 2)	Introduction to Control Systems	Foundations of Management	
2	Physics for Engineers VI	L 2	Networks and Basic Devices	Technical Thermodynamics II VL 2	2	Fundamentals of Materials Science II VL 2	Introduction to Control Systems VL 2	Introduction to Management	VL 4
3	Physics for Engineers UE	E 1	Electrical Engineering II: Alternating VL 3	Technical Thermodynamics II HÜ 1		Introduction into Medical Technology and	Introduction to Control Systems UE 2	Project Entrepreneurship	POL 2
			Current Networks and Basic Devices Electrical Engineering II: Alternating UE 2	Technical Thermodynamics II UE 1	1	Systems			
4			Current Networks and Basic Devices			Introduction into Medical Technology VL 2			
5	Chemistry					and Systems			
6		L 2 L 2				Introduction into Medical Technology POL 4			
7	Chemistry I HÜ		Fundamentals of Mechanical Engineering	Computer Engineering		and Systems	Mechanical Engineering: Design (part 1)	Mechanical Engineering: Design (pa	art 2)
8		Ü 1	Design	Computer Engineering VL 3	3		Embodiment Design and 3D-CAD VL 2	Team Project Design Methodology	POL 2
9			Fundamentals of Mechanical VL 2	Computer Engineering UE 1		MED I: Medical Basics I	Mechanical Design Project I TT 3	Mechanical Design Project II	TT 3
			Engineering Design Fundamentals of Mechanical HÜ 2			Introduction to Radiology and VL 2		51011 1 1 1 1 1 1 1 1 1 1 1 1 1	
10			Engineering Design			Radiation Therapy	BIO I: Implants and Testing (part 1) Implants and Fracture Healing VL 2	BIO I: Implants and Testing (part 2) Experimental Methods in	VL 2
11	Electrical Engineering I: Direct Current					Introduction to Anatomy VL 2	implants and riacture riealing VL 2	Biomechanics	VL Z
12	Networks and Electromagnetic Fields Electrical Engineering I: Direct Current VI	1 3							
13	Networks and Electromagnetic Fields	_ 0	Technical Thermodynamics I	Mathematics III			MED II: Medical Basics II (part 1)	MED II: Medical Basics II (part 2)	
14	Electrical Engineering I: Direct Current UE	E 2	Technical Thermodynamics I VL 2	Analysis III VL 2	2		Introduction to Biochemistry and VL 2	Introduction to Physiology	VL 2
15	Networks and Electromagnetic Fields		Technical Thermodynamics I HÜ 1	Analysis III UE 1		Signals and Systems	Molecular Biology		
			Technical Thermodynamics I UE 1	Analysis III HÜ 1 Differential Equations 1 VL 2	1	Signals and Systems VL 3			
16				Differential Equations 1 VL 2	_	Signals and Systems HÜ 1	Numerical Mathematics I Numerical Mathematics I VL 2	Bachelor Thesis	
17	Mathematics I			Differential Equations 1 HÜ 1	1		Numerical Mathematics I UE 2		
18	· ·	L 2 E 1							
19	Linear Algebra I UE		Mechanics II: Mechanics of Materials						
20	, and the second	L 2	Mechanics II VL 2						
21	Analysis I UE	E 1	Mechanics II UE 2	Mechanics III (Hydrostatics, Kinematics,		Fluid Dynamics			
22	Analysis I HÜ	Ü 1	Mechanics II HÜ 2	Kinetics I)		Fluid Mechanics VL 3	Heat Transfer		
				Mechanics III VL 3	3	Fluid Mechanics HÜ 1	Heat Transfer VL 3		
23				Mechanics III UE 2			Heat Transfer HÜ 1		
24				Mechanics III HÜ 1	1				
25	Mechanics I (Statics)		Mathematics II						
26		L 2	Linear Algebra II VL 2						
27		E 2 Ü 1	Linear Algebra II UE 1 Linear Algebra II HÜ 1	Fundamentals of Materials Science (part 1)		Mechanics IV (Kinetics II, Oscillations,			
28	iviedifatifCS (HC	0 1	Analysis II VL 2	Fundamentals of Materials Science I VL 2	2	Analytical Mechanics, Multibody Systems)	Measurement Technology for Mechanical and		
			Analysis II HÜ 1	Physical and Chemical Basics of VL 2		Mechanics IV VL 3	Process Engineers		
29			Analysis II UE 1	Materials Science		Mechanics IV UE 2	Measurement Technology for VL 2		
30						Mechanics IV HÜ 1	Mechanical and Process Engineers		
31							Measurement Technology for HÜ 1 Mechanical and Process Engineers		
32							Practical Course: Measurement and PR 2		
33			Programming in C				Control Systems		
34	-		Programming in C VL 1						

	Programming in C	PH	1
35	Physics for Engineers (part 2)		
36	Physics-Lab for ET/ AIW/ GES	PR	1

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.