

Course of Study General Engineering Science (German program, 7 semester) (Study Cohort w19)

Sample course plan - Bachelor General Engineering Science (German program, 7 semester) (AIWBS(7))
Specialisation Biomedical Engineering

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		Electrical Engineering II: Alternating Current Networks and Basic Devices		Technical Thermodynamics II		Fundamentals of Materials Science (part 2)		Introduction to Control Systems		Foundations of Management		Advanced Internship GES																	
2		Chemistry I		VL 2		Chemistry II		VL 2		Chemistry I		HÜ 1		Chemistry II	HÜ 1	Electrical Engineering II: Alternating Current Networks and Basic Devices	VL 3	Technical Thermodynamics II	HÜ 1	Fundamentals of Materials Science II	VL 2	Introduction to Control Systems	VL 2	Introduction to Management	VL 3	Management Tutorial	HÜ 2			
3		Chemistry I		HÜ 1		Chemistry II		HÜ 1		Electrical Engineering II: Alternating Current Networks and Basic Devices		VL 3		Technical Thermodynamics II	HÜ 1	Signals and Systems		Introduction to Control Systems	UE 2											
4										Electrical Engineering II: Alternating Current Networks and Basic Devices		UE 2		Technical Thermodynamics II	UE 1	Signals and Systems	VL 3													
5										Electrical Engineering II: Alternating Current Networks and Basic Devices		UE 2		Technical Thermodynamics II	UE 1	Signals and Systems	UE 2													
6										Electrical Engineering II: Alternating Current Networks and Basic Devices		UE 2		Technical Thermodynamics II	UE 1	Signals and Systems	UE 2													
7	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields		Fundamentals of Mechanical Engineering Design		Mathematics III		Fluid Dynamics		Mechanical Engineering: Design (part 1)		Mechanical Engineering: Design (part 2)		Introduction into Medical Technology and Systems																	
8		Electrical Engineering I: Direct Current Networks and Electromagnetic Fields		VL 3		Fundamentals of Mechanical Engineering Design		VL 2		Analysis III		UE 1		Fluid Mechanics	VL 3	Embodiment Design and 3D-CAD	VL 2	Team Project Design Methodology	PBL2	Introduction into Medical Technology and Systems	VL 2									
9		Electrical Engineering I: Direct Current Networks and Electromagnetic Fields		VL 3		Fundamentals of Mechanical Engineering Design		HÜ 2		Analysis III		HÜ 1		Fluid Mechanics	HÜ 2	Mechanical Design Project I	PBL3	Mechanical Design Project II	PBL3	Introduction into Medical Technology and Systems	VL 2									
10		Electrical Engineering I: Direct Current Networks and Electromagnetic Fields		UE 2		Fundamentals of Mechanical Engineering Design		HÜ 2		Differential Equations 1		VL 2		Fluid Mechanics	HÜ 2					Introduction into Medical Technology and Systems	PS 2									
11		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	VL 3					Introduction into Medical Technology and Systems	HÜ 1									
12		Electrical Engineering I: Direct Current Networks and Electromagnetic Fields		UE 2		Fundamentals of Mechanical Engineering Design		HÜ 2		Differential Equations 1		HÜ 1		Mechanics IV	UE 2					Introduction into Medical Technology and Systems	HÜ 1									
13	Mathematics I		Technical Thermodynamics I		Mechanics III (Hydrostatics, Kinematics, Kinetics I)		Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)		Heat Transfer		MED II: Introduction to Physiology		BIO I: Experimental Methods in Biomechanics																	
14		Linear Algebra I		VL 2		Technical Thermodynamics I		VL 2		Mechanics III		VL 3		Mechanics IV	VL 3	Heat Transfer	VL 3	Introduction to Physiology	VL 2	Bachelor Thesis										
15		Linear Algebra I		UE 1		Technical Thermodynamics I		HÜ 1		Mechanics III		UE 2		Mechanics IV	UE 2	Heat Transfer	HÜ 2	Introduction to Physiology	VL 2											
16		Linear Algebra I		HÜ 1		Technical Thermodynamics I		UE 1		Mechanics III		HÜ 1		Mechanics IV	HÜ 1	Heat Transfer	HÜ 2	Introduction to Physiology	VL 2											
17		Analysis I		VL 2		Technical Thermodynamics I		UE 1		Mechanics III		HÜ 1		Mechanics IV	HÜ 1	Heat Transfer	HÜ 2	Introduction to Physiology	VL 2											
18		Analysis I		UE 1		Technical Thermodynamics I		UE 1		Mechanics III		HÜ 1		Mechanics IV	HÜ 1	Heat Transfer	HÜ 2	Introduction to Physiology	VL 2											
19	Analysis I	HÜ 1	Technical Thermodynamics I	UE 1	Mechanics III	HÜ 1	Mechanics IV	HÜ 1	Heat Transfer	HÜ 2	Introduction to Physiology	VL 2																		
20			Mechanics II: Mechanics of Materials		Computer Engineering		MED I: Introduction to Anatomy		Measurement Technology for Mechanical and Process Engineers		BIO I: Experimental Methods in Biomechanics		Bachelor Thesis																	
21	Mechanics I (Statics)			Mechanics II		VL 2		Computer Engineering		VL 3		Introduction to Anatomy		VL 2	Experimental Methods in Biomechanics	VL 2														
22	Mechanics I	VL 2		Mechanics II		UE 2		Computer Engineering		VL 3		Introduction to Anatomy		VL 2	Experimental Methods in Biomechanics	VL 2														
23	Mechanics I	UE 2		Mechanics II		HÜ 2		Computer Engineering		UE 1		Introduction to Anatomy		VL 2	Experimental Methods in Biomechanics	VL 2														
24	Mechanics I	HÜ 1	Mechanics II	HÜ 2	Computer Engineering	UE 1	Introduction to Anatomy	VL 2	Experimental Methods in Biomechanics	VL 2																				

25							
26		Mathematics II			Radiology and Radiation Therapy	Measurement Technology for Mechanical and Process Engineers	VL 2
		Linear Algebra II	VL 2		Introduction to Radiology and Radiation Therapy		VL 2
		Linear Algebra II	UE 1				
		Linear Algebra II	HÜ 1				HÜ 1
27	Programming in C			Fundamentals of Materials Science (part 1)		Measurement Technology for Mechanical and Process Engineers	
	Programming in C	VL 1		Fundamentals of Materials Science I			
	Programming in C	PR 1		Physical and Chemical Basics of Materials Science		Practical Course: Measurement and Control Systems	PR 2
28							
29	Physics for Engineers (AIW)					MED II: Introduction to Biochemistry and Molecular Biology	
30	Physics for Engineers	VL 2				Introduction to Biochemistry and Molecular Biology	VL 2
	Physics for Engineers	UE 1					
31						BIO I: Implants and Fracture Healing	
32						Implants and Fracture Healing	VL 2
33							

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.