

Course of Study General Engineering Science (German program, 7 semester) (Study Cohort w20)

Sample course plan A Bachelor General Engineering Science (German program, 7 semester) (AIWBS(7))
Specialisation Mechanical Engineering, Focus Biomechanics

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 Chemistry I+II Chemistry I+II	VL 4	Electrical Engineering II: Alternating Current Networks and Basic Devices Electrical Engineering II: Alternating Current Networks and Basic Devices Electrical Engineering II: Alternating Current Networks and Basic Devices	VL 3	Technical Thermodynamics II Technical Thermodynamics II Technical Thermodynamics II Technical Thermodynamics II	VL 2	Signals and Systems Signals and Systems Signals and Systems	VL 3	Introduction to Control Systems Introduction to Control Systems Introduction to Control Systems	VL 2	Foundations of Management Introduction to Management Management Tutorial	VL 3	Advanced Internship AIW/GES	
2		HÜ 2		UE 2		HÜ 1		UE 2		UE 2		UE 2		
3														
4														
5														
6														
7	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields Electrical Engineering I: Direct Current Networks and Electromagnetic Fields Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	VL 3	Fundamentals of Mechanical Engineering Design Fundamentals of Mechanical Engineering Design Fundamentals of Mechanical Engineering Design	VL 2	Mathematics III Analysis III Analysis III Analysis III Differential Equations 1 Differential Equations 1 Differential Equations 1	VL 2	Fluid Dynamics Fluid Mechanics Fluid Mechanics	VL 3	Measurement Technology for Mechanical Engineers Measurement Technology for Mechanical Engineering Measurement Technology for Mechanical Engineering Practical Course: Measurement and Control Systems	VL 2	Advanced Materials Advanced Materials Characterization Advanced Materials Design Advanced Materials Design	VL 2		
8		UE 2		HÜ 2		UE 1		HÜ 1		HÜ 1		HÜ 1		
9														
10														
11														
12														
13	Mathematics I Linear Algebra I Linear Algebra I Linear Algebra I Analysis I Analysis I Analysis I	VL 2	Technical Thermodynamics I Technical Thermodynamics I Technical Thermodynamics I Technical Thermodynamics I	VL 2	Mechanics III (Dynamics) Mechanics III Mechanics III Mechanics III	VL 3	Mechanics IV (Oscillations, Analytical Mechanics, Multibody Systems, Numerical Mechanics) Mechanics IV Mechanics IV Mechanics IV	VL 2	Numerical Mathematics I Numerical Mathematics I Numerical Mathematics I	VL 2	MED II: Introduction to Physiology Introduction to Physiology	VL 2		
14		UE 1		HÜ 1		UE 2		HÜ 1		UE 2		UE 2		
15		HÜ 1		HÜ 1		HÜ 1		HÜ 1		HÜ 1		HÜ 1		
16		VL 2		UE 1		UE 1		UE 1		UE 2		UE 2		
17		UE 1		UE 1		UE 1		UE 1		UE 2		UE 2		
18		HÜ 1		HÜ 1		HÜ 1		HÜ 1		HÜ 1		HÜ 1		
19	Mechanics I (Statics) Mechanics I Mechanics I Mechanics I	VL 2	Mechanics II: Mechanics of Materials Mechanics II Mechanics II Mechanics II	VL 2	Advanced Mechanical Engineering Design (part 1) Advanced Mechanical Engineering Design I	VL 2	MED I: Introduction to Anatomy Introduction to Anatomy	VL 2	Computer Engineering Computer Engineering Computer Engineering	VL 3	BIO I: Experimental Methods in Biomechanics Experimental Methods in Biomechanics	VL 2	Bachelor Thesis	
20		UE 2		UE 2		UE 2		UE 2		UE 2				
21		UE 2		HÜ 2		HÜ 2		HÜ 2		HÜ 2				
22		UE 2		HÜ 2		HÜ 2		HÜ 2		HÜ 2				
23		HÜ 1		HÜ 1		HÜ 1		HÜ 1		HÜ 1				

24			Advanced Mechanical Engineering Design I	HÜ 2	Introduction to Radiology and Radiation Therapy	VL 2	
25			Mechanical Engineering: Design (part 1)				
26		Mathematics II			Advanced Mechanical Engineering Design (part 2)		MED II: Introduction to Biochemistry and Molecular Biology
		Linear Algebra II	Embodiment Design and 3D-CAD	VL 2	Advanced Mechanical Engineering Design II	VL 2	Introduction to Biochemistry and Molecular Biology
		Linear Algebra II	Mechanical Design Project I	UE 1	Advanced Mechanical Engineering Design II	HÜ 2	
		Linear Algebra II		HÜ 1			
27		Analysis II		VL 2			
	Programming in C	Analysis II	Fundamentals of Materials Science (part 1)	HÜ 1			
28	Programming in C	Analysis II	Fundamentals of Materials Science I	UE 1	Mechanical Engineering: Design (part 2)		BIO I: Implants and Fracture Healing
	Programming in C		Physical and Chemical Basics of Materials Science	VL 2	Team Project Design Methodology	PBL2	Implants and Fracture Healing
29					Mechanical Design Project II	PBL3	
30	Physics for Engineers (AIW)						
	Physics for Engineers						
	Physics for Engineers						
31					Fundamentals of Materials Science (part 2)		
32					Fundamentals of Materials Science II	VL 2	

Non-technical 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.