

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

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

24			Advanced Mechanical Engineering Design I	HÜ 2	Introduction to Radiology and Radiation Therapy	VL 2	
25			<b>Mechanical Engineering: Design (part 1)</b>				
26		<b>Mathematics II</b>			<b>Advanced Mechanical Engineering Design (part 2)</b>		<b>MED II: Introduction to Biochemistry and Molecular Biology</b>
		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			
	<b>Programming in C</b>	Analysis II	<b>Fundamentals of Materials Science (part 1)</b>	HÜ 1			
28	Programming in C	Analysis II	Fundamentals of Materials Science I	UE 1	<b>Mechanical Engineering: Design (part 2)</b>		<b>BIO I: Implants and Fracture Healing</b>
	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	<b>Physics for Engineers (AIW)</b>						
	Physics for Engineers						
	Physics for Engineers						
31					<b>Fundamentals of Materials Science (part 2)</b>		
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.