

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

Sample course plan B Bachelor General Engineering Science (German program, 7 semester) (AIWBS(7))
Specialisation Mechanical Engineering, Focus Materials in Engineering Sciences

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

	Mechanics I Mechanics I	UE 2 HÜ 1	Mechanics II	HÜ 2	1) Advanced Mechanical Engineering Design I Advanced Mechanical Engineering Design I	VL 2 HÜ 2	Engineering Design II Advanced Mechanical Engineering Design II	HÜ 2	of Materials	
22										
23										
24					Mechanical Engineering: Design (part 1) Embodiment Design and 3D-CAD	VL 2	Mechanical Engineering: Design (part 2) Team Project Design Methodology Mechanical Design Project II	PBL2 PBL3		
25			Mathematics II		Mechanical Design Project I	PBL3	Fundamentals of Materials Science (part 2) Fundamentals of Materials Science II	VL 2	Structural Materials (part 1) Welding Technology	VL 3
26			Linear Algebra II	VL 2						
			Linear Algebra II	UE 1						
			Linear Algebra II	HÜ 1						
27	Programming in C		Analysis II	VL 2	Fundamentals of Materials Science (part 1)					
28	Programming in C	VL 1	Analysis II	HÜ 1	Fundamentals of Materials Science I	VL 2			Material Science Laboratory Companion Lecture for Materials Science Laboratory	VL 2
	Programming in C	PR 1	Analysis II	UE 1	Physical and Chemical Basics of Materials Science	VL 2			Material Science Laboratory	PR 4
29	Physics for Engineers (AIW)									
30	Physics for Engineers	VL 2								
31	Physics for Engineers	UE 1								
32										
33										
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.