Course of Study General Engineering Science (German program, 7 semester) (Study Cohort w16)

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

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/wk	Semester 2	Form	Hrs/wk	Semester 3	Form	Hrs/wk	Semester 4	Form	Hrs/wk	Semester 5	Form	Hrs/wk	Semester 6	Form	Hrs/wk	Semester 7	Form	Hrs/wk
1	**Chemistry**			**Electrical Engineering II: Alternating Current Networks and Basic Devices**			**Technical Thermodynamics II**			**Mechanical Engineering: Design (part 2)**			**Computer Engineering**			**Foundations of Management**			**Advanced Internship GES**		
2	Chemistry I	VL	2	Electrical Engineering II: Alternating Current Networks and Basic Devices	VL	3	Technical Thermodynamics II	VL	2	Team Project Design Methodology	PBL	2	Computer Engineering	VL	3	Introduction to Management	VL	3			
3	Chemistry II	VL	2				Technical Thermodynamics II	HÜ	1	Mechanical Design Project II	TT	3	Computer Engineering	UE	1	Management Tutorial	HÜ	2			
4	Chemistry I	HÜ	1	Electrical Engineering II: Alternating Current Networks and Basic Devices	UE	2	Technical Thermodynamics II	UE	1	**Fundamentals of Materials Science (part 2)**											
5	Chemistry II	HÜ	1							Fundamentals of Materials Science II	VL	2									
6										**Advanced Mechanical Engineering Design (part 2)**											
7	**Electrical Engineering I: Direct Current Networks and Electromagnetic Fields**			**Fundamentals of Mechanical Engineering Design**			**Mathematics III**			Advanced Mechanical Engineering Design II	VL	2	**Introduction to Control Systems**			**Semiconductor Circuit Design**					
8	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	VL	3	Fundamentals of Mechanical Engineering Design	VL	2	Analysis III	VL	2	Advanced Mechanical Engineering Design II	HÜ	2	Introduction to Control Systems	VL	2	Semiconductor Circuit Design	VL	3			
9							Analysis III	UE	1	**Fluid Dynamics**			Introduction to Control Systems	UE	2	Semiconductor Circuit Design	UE	1			
10				Fundamentals of Mechanical Engineering Design	HÜ	2	Analysis III	HÜ	1	Fluid Mechanics	VL	3									
11							Differential Equations 1	VL	2	Fluid Mechanics	HÜ	2									
12	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	UE	2				Differential Equations 1	UE	1												
13	**Mathematics I**			**Technical Thermodynamics I**			Differential Equations 1	HÜ	1				**Measurement Technology for Mechanical and Process Engineers**			**Mathematics IV**					
14	Linear Algebra I	VL	2	Technical Thermodynamics I	VL	2	**Mechanics III (Hydrostatics, Kinematics, Kinetics I)**			**Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)**			Measurement Technology for Mechanical and Process Engineers	VL	2	Complex Functions	VL	2			
15	Linear Algebra I	UE	1	Technical Thermodynamics I	HÜ	1	Mechanics III	VL	3	Mechanics IV	VL	3				Complex Functions	UE	1			
16	Linear Algebra I	HÜ	1	Technical Thermodynamics I	UE	1	Mechanics III	UE	2	Mechanics IV	UE	2	Measurement Technology for Mechanical and Process Engineers	HÜ	1	Complex Functions	HÜ	1			
17	Analysis I	VL	2				Mechanics III	HÜ	1	Mechanics IV	HÜ	1				Differential Equations 2	VL	2			
18	Analysis I	UE	1										Practical Course: Measurement and Control Systems	PR	2	Differential Equations 2	UE	1			
	Analysis I	HÜ	1													Differential Equations 2	HÜ	1			
19				**Mechanics II: Mechanics of Materials**									**Electrical Engineering III: Circuit Theory and Transients**			**Fundamentals of Production and Quality Management**			**Bachelor Thesis**		
20				Mechanics II	VL	2							Circuit Theory	VL	3	Production Process Organization	VL	2			
21	**Mechanics I (Statics)**			Mechanics II	UE	2	**Mechanical Engineering: Design (part 1)**			**Signals and Systems**			Circuit Theory	UE	2	Quality Management	VL	2			
22	Mechanics I	VL	2	Mechanics II	HÜ	2	Embodiment Design and 3D-CAD	VL	2	Signals and Systems	VL	3									
23	Mechanics I	UE	2							Signals and Systems	HÜ	1									
	Mechanics I	HÜ	1																		

			Mechanical Design Project I TT 3			
24			**Fundamentals of Materials Science (part 1)** Fundamentals of Materials Science I VL 2 Physical and Chemical Basics of Materials Science VL 2			
25		**Mathematics II** Linear Algebra II VL 2 Linear Algebra II UE 1 Linear Algebra II HÜ 1 Analysis II VL 2 Analysis II HÜ 1 Analysis II UE 1			**Simulation and Design of Mechatronic Systems** Simulation and Design of Mechatronic Systems VL 2 Simulation and Design of Mechatronic Systems HÜ 1 Simulation and Design of Mechatronic Systems PR 1	
26						
27	**Programming in C** Programming in C VL 1 Programming in C PR 1					
28			**Advanced Mechanical Engineering Design (part 1)** Advanced Mechanical Engineering Design I VL 2 Advanced Mechanical Engineering Design I HÜ 2			
29						
30	**Physics for Engineers (AIW)** Physics for Engineers VL 2 Physics for Engineers UE 1					
31						
32						
	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.