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

Sample course plan C Bachelor General Engineering Science (German program, 7 semester) (AIWBS(7))
Specialisation Mechanical Engineering, Focus Theoretical Mechanical 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	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	PBL	3	Computer Engineering	UE	1	Management Tutorial	HÜ	2			
4	Chemistry I	HÜ	1				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**			**Mathematics IV**					
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	Complex Functions	VL	2			
9				Fundamentals of Mechanical Engineering Design	HÜ	2	Analysis III	UE	1				Introduction to Control Systems	UE	2	Complex Functions	UE	1			
10	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	UE	2				Analysis III	HÜ	1	**Fluid Dynamics**						Complex Functions	HÜ	1			
11							Differential Equations 1	VL	2	Fluid Mechanics	VL	3				Differential Equations 2	VL	2			
12							Differential Equations 1	UE	1	Fluid Mechanics	HÜ	2				Differential Equations 2	UE	1			
13	**Mathematics I**			**Technical Thermodynamics I**			Differential Equations 1	HÜ	1							Differential Equations 2	HÜ	1			
14	Linear Algebra I	VL	2	Technical Thermodynamics I	VL	2							**Measurement Technology for Mechanical and Process Engineers**			**Advanced Materials**					
15	Linear Algebra I	UE	1	Technical Thermodynamics I	HÜ	1	**Mechanics III (Hydrostatics, Kinematics, Kinetics I)**			**Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)**			Measurement Technology for Mechanical and Process Engineers	VL	2	Advanced Materials Characterization	VL	2			
16	Linear Algebra I	HÜ	1	Technical Thermodynamics I	UE	1	Mechanics III	VL	3	Mechanics IV	VL	3	Measurement Technology for Mechanical and Process Engineers	HÜ	1	Advanced Materials Design	VL	2			
17	Analysis I	VL	2				Mechanics III	UE	2	Mechanics IV	UE	2	Practical Course: Measurement and Control Systems	PR	2	Advanced Materials Design	HÜ	2			
18	Analysis I	UE	1				Mechanics III	HÜ	1	Mechanics IV	HÜ	1									
19	Analysis I	HÜ	1	**Mechanics II: Mechanics of Materials**									**Advanced Mechanical Design Project**			**Production Engineering (part 2)**			**Bachelor Thesis**		
20				Mechanics II	VL	2							Advanced Mechanical Design Project	PBL	4	Production Engineering II	VL	2			
21	**Mechanics I (Statics)**			Mechanics II	UE	2	**Mechanical Engineering:**			**Signals and Systems**											

	Mechanics I VL 2 Mechanics I UE 2	Mechanics II HÜ 2	**Design (part 1)** Embodiment Design and 3D-CAD VL 2 Mechanical Design Project I PBL3	Signals and Systems VL 3 Signals and Systems UE 2		Production Engineering II HÜ 1	
22	Mechanics I HÜ 1						
23							
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			**Numerical Mathematics I** Numerical Mathematics I VL 2 Numerical Mathematics I UE 2		
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					**Production Engineering (part 1)** Production Engineering I VL 2 Production Engineering I HÜ 1		
32							
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.