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 Energy Systems

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)**			**Introduction to Control Systems**			**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	Introduction to Control Systems	VL	2	Introduction to Management	VL	3			
3	Chemistry II	VL	2				Technical Thermodynamics II	HÜ	1	Mechanical Design Project II	TT	3	Introduction to Control Systems	UE	2	Management Tutorial	HÜ	2			
4	Chemistry I	HÜ	1																		
5	Chemistry II	HÜ	1	Electrical Engineering II: Alternating Current Networks and Basic Devices	UE	2	Technical Thermodynamics II	UE	1	**Fundamentals of Materials Science (part 2)**											
6										Fundamentals of Materials Science II	VL	2									
7	**Electrical Engineering I: Direct Current Networks and Electromagnetic Fields**			**Fundamentals of Mechanical Engineering Design**			**Mathematics III**			**Fluid Dynamics**			**Measurement Technology for Mechanical and Process Engineers**			**Advanced Mechanical Engineering Design (part 2)**					
8	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	VL	3	Fundamentals of Mechanical Engineering Design	VL	2	Analysis III	VL	2	Fluid Mechanics	VL	3	Measurement Technology for Mechanical and Process Engineers	VL	2	Advanced Mechanical Engineering Design II	VL	2			
9							Analysis III	UE	1	Fluid Mechanics	HÜ	2				Advanced Mechanical Engineering Design II	HÜ	2			
10	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	UE	2	Fundamentals of Mechanical Engineering Design	HÜ	2	Analysis III	HÜ	1				Measurement Technology for Mechanical and Process Engineers	HÜ	1	**Reciprocating Machinery (part 2)**					
11							Differential Equations 1	VL	2	**Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)**						Internal Combustion Engines I	VL	2			
12							Differential Equations 1	UE	1	Mechanics IV	VL	3	Practical Course: Measurement and Control Systems	PR	2	Internal Combustion Engines I	HÜ	1			
13	**Mathematics I**			**Technical Thermodynamics I**			Differential Equations 1	HÜ	1	Mechanics IV	UE	2	**Advanced Mechanical Engineering Design (part 1)**			**Fundamentals of Production and Quality Management**					
14	Linear Algebra I	VL	2	Technical Thermodynamics I	VL	2	**Mechanics III (Hydrostatics, Kinematics, Kinetics I)**			Mechanics IV	HÜ	1	Advanced Mechanical Engineering Design I	VL	2	Production Process Organization	VL	2			
15	Linear Algebra I	UE	1	Technical Thermodynamics I	HÜ	1	Mechanics III	VL	3				Advanced Mechanical Engineering Design I	HÜ	2	Quality Management	VL	2			
16	Linear Algebra I	HÜ	1	Technical Thermodynamics I	UE	1	Mechanics III	UE	2	**Signals and Systems**			**Heat Transfer**								
17	Analysis I	VL	2				Mechanics III	HÜ	1	Signals and Systems	VL	3	Heat Transfer	VL	3						
18	Analysis I	UE	1	**Mechanics II: Mechanics of Materials**						Signals and Systems	HÜ	1	Heat Transfer	HÜ	2	**Renewables and Energy Systems**			**Bachelor Thesis**		
19	Analysis I	HÜ	1	Mechanics II	VL	2	**Computer Engineering**									Renewable Energy	VL	2			
20				Mechanics II	UE	2	Computer Engineering	VL	3				**Reciprocating Machinery (part 1)**			Energy Systems and Energy Industry	VL	2			
21	**Mechanics I (Statics)**			Mechanics II	HÜ	2	Computer Engineering	UE	1				Fundamentals of Reciprocating Engines	VL	1	Power Industry	VL	1			
22	Mechanics I	VL	2																		
23	Mechanics I	UE	2																		
	Mechanics I	HÜ	1																		

					and Turbomachinery - Part Reciprocating Engines Fundamentals of Reciprocating Engines and Turbomachinery - Part Reciprocating Engines HÜ 1	Renewable Energy UE 1
24						
25						
26		**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			**Gas and Steam Power Plants** Gas and Steam Power Plants VL 3 Gas and Steam Power Plants HÜ 2	
27						
28	**Programming in C** Programming in C VL 1 Programming in C PR 1		**Mechanical Engineering: Design (part 1)** Embodiment Design and 3D-CAD VL 2 Mechanical Design Project I TT 3			
29	**Physics for Engineers (AIW)** Physics for Engineers VL 2					
30	Physics for Engineers UE 1		**Fundamentals of Materials Science (part 1)** Fundamentals of Materials Science I VL 2 Physical and Chemical Basics of Materials Science VL 2			
31						
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.