Course of Study General Engineering Science (German program) (Study Cohort w14)

Sample course plan B Bachelor General Engineering Science (German program) (AIWBS)
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
1	**Physics for Engineers (part 1)**			**Electrical Engineering II: Alternating Current Networks and Basic Devices**			**Technical Thermodynamics II**			**Mechanical Engineering: Design (part 2)**			**Introduction to Control Systems**			**Foundations of Management**		
2	Physics for Engineers	VL	2	Electrical Engineering II: Alternating Current Networks and Basic Devices	VL	3	Technical Thermodynamics II	VL	2	Team Project Design Methodology	POL	2	Introduction to Control Systems	VL	2	Introduction to Management	VL	4
3	Physics for Engineers	UE	1	Electrical Engineering II: Alternating Current Networks and Basic Devices	UE	2	Technical Thermodynamics II	HÜ	1	Mechanical Design Project II	TT	3	Introduction to Control Systems	UE	2	Project Entrepreneurship	POL	2
4							Technical Thermodynamics II	UE	1	**Fundamentals of Materials Science (part 2)**								
5	**Chemistry**									Fundamentals of Materials Science II	VL	2						
6	Chemistry I	VL	2							**Advanced Mechanical Engineering Design (part 2)**								
7	Chemistry II	VL	2	**Fundamentals of Mechanical Engineering Design**			**Computer Engineering**			Advanced Mechanical Engineering Design II	VL	2	**Measurement Technology for Mechanical and Process Engineers**			**Reciprocating Machinery (part 2)**		
8	Chemistry I	HÜ	1	Fundamentals of Mechanical Engineering Design	VL	2	Computer Engineering	VL	3	Advanced Mechanical Engineering Design II	HÜ	2	Measurement Technology for Mechanical and Process Engineers	VL	2	Internal Combustion Engines I	VL	2
9	Chemistry II	HÜ	1	Fundamentals of Mechanical Engineering Design	HÜ	2	Computer Engineering	UE	1	**Signals and Systems**			Measurement Technology for Mechanical and Process Engineers	HÜ	1	Internal Combustion Engines I	HÜ	1
10										Signals and Systems	VL	3	Practical Course: Measurement and Control Systems	PR	2			
11	**Electrical Engineering I: Direct Current Networks and Electromagnetic Fields**			**Technical Thermodynamics I**			**Mathematics III**			Signals and Systems	HÜ	1				**Bachelor Thesis**		
12	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	VL	3	Technical Thermodynamics I	VL	2	Analysis III	VL	2				**Gas and Steam Power Plants**					
13	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	UE	2	Technical Thermodynamics I	HÜ	1	Analysis III	UE	1				Gas and Steam Power Plants	VL	3			
14				Technical Thermodynamics I	UE	1	Analysis III	HÜ	1	**Fluid Dynamics**			Gas and Steam Power Plants	HÜ	2			
15							Differential Equations 1	VL	2	Fluid Mechanics	VL	3						
16							Differential Equations 1	UE	1	Fluid Mechanics	HÜ	1						
17	**Mathematics I**						Differential Equations 1	HÜ	1				**Computational Fluid Dynamics I**					
18	Linear Algebra I	VL	2	**Mechanics II: Mechanics of Materials**									Computational Fluid Dynamics I	VL	2			
19	Linear Algebra I	UE	1	Mechanics II	VL	2							Computational Fluid Dynamics I	HÜ	2			
20	Linear Algebra I	HÜ	1	Mechanics II	UE	2	**Mechanics III (Hydrostatics, Kinematics, Kinetics I)**			**Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)**								
21	Analysis I	VL	2				Mechanics III	VL	3	Mechanics IV	VL	3						
22	Analysis I	UE	1				Mechanics III	UE	2	Mechanics IV	UE	2						
23	Analysis I	HÜ	1				Mechanics III	HÜ	1	Mechanics IV	HÜ	1						
24																		
25	**Mechanics I (Statics)**			**Mathematics II**			**Mechanical Engineering: Design (part 1)**			**Fundamentals of Production and Quality Management**			**Heat Transfer**					
26	Mechanics I	VL	2	Linear Algebra II	VL	2	Embodiment Design and 3D-CAD	VL	2	Production Process Organization	VL	2	Heat Transfer	VL	3			
27	Mechanics I	UE	2	Linear Algebra II	UE	1	Mechanical Design Project I	TT	3	Quality Management	VL	2	Heat Transfer	HÜ	1			
28	Mechanics I	HÜ	1	Linear Algebra II	HÜ	1												
29				Analysis II	VL	2	**Fundamentals of Materials Science (part 1)**						**Reciprocating Machinery (part 1)**					
30				Analysis II	HÜ	1	Fundamentals of Materials Science I	VL	2				Fundamentals of Reciprocating	VL	1			
31				Analysis II	UE	1	Physical and Chemical Basics of	VL	2				Engines and Turbomachinery - Part					
32							Materials Science						Reciprocating Engines					

					Reciprocating Engines Fundamentals of Reciprocating Engines and Turbomachinery - Part Reciprocating Engines HÜ 1
33		**Programming in C** Programming in C VL 1 Programming in C PR 1			
34			**Advanced Mechanical Engineering Design (part 1)** Advanced Mechanical Engineering Design I VL 2 Advanced Mechanical Engineering Design I HÜ 2		
35		**Physics for Engineers (part 2)** Physics-Lab for ET/IIW-Engineers PR 1			
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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.