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 Theoretical Mechanical Engineering

LP	Semester 1	FormHrs/wk	Semester 2	FormHrs/wk	Semester 3	FormHrs/wk	Semester 4	FormHrs/wk	Semester 5	FormHrs/wk	Semester 6	FormHrs/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			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	VL 3	Technical Thermodynamics II	HÜ 1	Mechanical Design Project II	TT 3	Introduction to Control Systems	UE 2	Project Entrepreneurship	POL 2
4			Current Networks and Basic Devices		Technical Thermodynamics II	UE 1						
5	**Chemistry**		Electrical Engineering II: Alternating	UE 2			**Fundamentals of Materials Science (part 2)**					
6	Chemistry I	VL 2	Current Networks and Basic Devices				Fundamentals of Materials Science II	VL 2				
7	Chemistry II	VL 2			**Computer Engineering**				**Measurement Technology for Mechanical and Process Engineers**		**Mathematics IV**	
8	Chemistry I	HÜ 1	**Fundamentals of Mechanical Engineering Design**		Computer Engineering	VL 3	**Advanced Mechanical Engineering Design (part 2)**				Complex Functions	VL 2
	Chemistry II	HÜ 1	Fundamentals of Mechanical	VL 2	Computer Engineering	UE 1	Advanced Mechanical Engineering	VL 2	Measurement Technology for	VL 2	Complex Functions	UE 1
9			Engineering Design				Design II		Mechanical and Process Engineers		Complex Functions	HÜ 1
			Fundamentals of Mechanical	HÜ 2			Advanced Mechanical Engineering	HÜ 2	Measurement Technology for	HÜ 1	Differential Equations 2	VL 2
10			Engineering Design				Design II		Mechanical and Process Engineers		Differential Equations 2	UE 1
11	**Electrical Engineering I: Direct Current Networks and Electromagnetic Fields**						**Signals and Systems**		Practical Course: Measurement and	PR 2	Differential Equations 2	HÜ 1
12							Signals and Systems	VL 3	Control Systems			
13	Electrical Engineering I: Direct Current	VL 3			**Mathematics III**		Signals and Systems	HÜ 1			**Bachelor Thesis**	
14	Networks and Electromagnetic Fields		**Technical Thermodynamics I**		Analysis III	VL 2			**Simulation of Dynamic Systems and Reliability**			
	Electrical Engineering I: Direct Current	UE 2	Technical Thermodynamics I	VL 2	Analysis III	UE 1						
15	Networks and Electromagnetic Fields		Technical Thermodynamics I	HÜ 1	Analysis III	HÜ 1	**Fluid Dynamics**		Simulation of Dynamic Systems	VL 2		
16			Technical Thermodynamics I	UE 1	Differential Equations 1	VL 2	Fluid Mechanics	VL 3	Reliability of Dynamic Systems	VL 2		
17	**Mathematics I**				Differential Equations 1	UE 1	Fluid Mechanics	HÜ 1	Simulation of Dynamic Systems	UE 1		
18	Linear Algebra I	VL 2			Differential Equations 1	HÜ 1			Reliability of Dynamic Systems	UE 1		
19	Linear Algebra I	UE 1	**Mechanics II: Mechanics of Materials**									
20	Linear Algebra I	HÜ 1	Mechanics II	VL 2								
	Analysis I	VL 2	Mechanics II	UE 2								
21	Analysis I	UE 1			**Mechanics III (Hydrostatics, Kinematics, Kinetics I)**		**Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)**		**Advanced Mechanical Design Project**			
22	Analysis I	HÜ 1			Mechanics III	VL 3	Mechanics IV	VL 3	Advanced Mechanical Design Project	TT 4		
23					Mechanics III	UE 2	Mechanics IV	UE 2				
24					Mechanics III	HÜ 1	Mechanics IV	HÜ 1				
25	**Mechanics I (Statics)**		**Mathematics II**						**Heat Transfer**			
26	Mechanics I	VL 2	Linear Algebra II	VL 2					Heat Transfer	VL 3		
27	Mechanics I	UE 2	Linear Algebra II	UE 1					Heat Transfer	HÜ 1		
	Mechanics I	HÜ 1	Linear Algebra II	HÜ 1	**Mechanical Engineering: Design (part 1)**		**Fundamentals of Production and Quality Management**					
28			Analysis II	VL 2	Embodiment Design and 3D-CAD	VL 2	Production Process Organization	VL 2				
29			Analysis II	HÜ 1	Mechanical Design Project I	TT 3	Quality Management	VL 2				
30			Analysis II	UE 1	**Fundamentals of Materials Science (part 1)**							
31					Fundamentals of Materials Science I	VL 2						
32					Physical and Chemical Basics of	VL 2						
33			**Programming in C**		Materials Science							

34	Programming in C	VL	1	**Advanced Mechanical Engineering Design (part 1)**
	Programming in C	PR	1	
35	**Physics for Engineers (part 2)**			Advanced Mechanical Engineering Design I	VL	2
36	Physics-Lab for ET/IIW-Engineers	PR	1	Advanced Mechanical Engineering Design I	HÜ	2

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.