Course of Study General Engineering Science (German program, 7 semester) (Study Cohort w18)

Sample course plan B 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

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