Course of Study General Engineering Science (German program, 7 semester) (Study Cohort w17)

Legend:

Core Qualification Compulsory	Specialisation Compulsory	Focus Compulsory	Thesis Compulsory
Core Qualification Elective Compulsory	Specialisation Elective Compulsory	Focus Elective Compulsory	Interdisciplinary complement

Sample course plan A Bachelor General Engineering Science (German program, 7 semester) (AIWBS(7))
Specialisation Mechanical Engineering, Focus Mechatronics

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	Semester 7	FormHrs/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 AIW/ 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	Electrical Engineering II: Alternating Current Networks and Basic Devices	GÜ 2	Technical Thermodynamics II	HÜ 1	Mechanical Design Project II	PBL 3	Computer Engineering	GÜ 1	Management Tutorial	HÜ 2		
4	Chemistry I	HÜ 1			Technical Thermodynamics II	GÜ 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**		**Semiconductor Circuit Design**			
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	Semiconductor Circuit Design	VL 3		
9	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	GÜ 2	Fundamentals of Mechanical Engineering Design	HÜ 2	Analysis III	GÜ 1			Introduction to Control Systems	GÜ 2	Semiconductor Circuit Design	GÜ 1		
10					Analysis III	HÜ 1	**Fluid Dynamics**							
11					Differential Equations 1	VL 2	Fluid Mechanics	VL 3						
12					Differential Equations 1	GÜ 1	Fluid Mechanics	HÜ 2						
13	**Mathematics I**		**Technical Thermodynamics I**		Differential Equations 1	HÜ 1			**Measurement Technology for Mechanical and Process Engineers**		**Mathematics IV**			
14	Linear Algebra I	VL 2	Technical Thermodynamics I	VL 2					Measurement Technology for Mechanical and Process Engineers	VL 2	Complex Functions	VL 2		
15	Linear Algebra I	GÜ 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	HÜ 1	Complex Functions	GÜ 1		
16	Linear Algebra I	HÜ 1	Technical Thermodynamics I	GÜ 1	Mechanics III	VL 3	Mechanics IV	VL 3	Practical Course: Measurement and Control Systems	PR 2	Complex Functions	HÜ 1		
17	Analysis I	VL 2			Mechanics III	GÜ 2	Mechanics IV	GÜ 2			Differential Equations 2	VL 2		
18	Analysis I	GÜ 1			Mechanics III	HÜ 1	Mechanics IV	HÜ 1			Differential Equations 2	GÜ 1		
19	Analysis I	HÜ 1	**Mechanics II: Mechanics of Materials**								Differential Equations 2	HÜ 1		
20			Mechanics II	VL 2	**Mechanical Engineering: Design (part 1)**		**Signals and Systems**		**Electrical Engineering III: Circuit Theory and Transients**		**Electrical Machines and Actuators**		**Bachelor Thesis**	
21	**Mechanics I (Statics)**		Mechanics II	GÜ 2	Embodiment Design and 3D-CAD	VL 2	Signals and Systems	VL 3	Circuit Theory	VL 3	Electrical Machines and Actuators	VL 3		
22	Mechanics I	VL 2	Mechanics II	HÜ 2	Mechanical Design Project I	PBL 3	Signals and Systems	GÜ 2	Circuit Theory	GÜ 2	Electrical Machines and Actuators	HÜ 2		
23	Mechanics I	GÜ 2			**Fundamentals of Materials Science (part 1)**									
24	Mechanics I	HÜ 1			Fundamentals of Materials Science I	VL 2								
25			**Mathematics II**		Physical and Chemical Basics of Materials Science	VL 2			**Simulation and Design of Mechatronic Systems**					
26			Linear Algebra II	VL 2					Simulation and Design of Mechatronic Systems	VL 2				
27	**Programming in C**		Linear Algebra II	GÜ 1	**Advanced Mechanical Engineering Design (part 1)**				Simulation and Design of Mechatronic Systems	HÜ 1				
28	Programming in C	VL 1	Linear Algebra II	HÜ 1	Advanced Mechanical Engineering Design I	VL 2			Simulation and Design of Mechatronic Systems	PR 1				
29	**Physics for Engineers (AIW)**		Analysis II	VL 2	Advanced Mechanical Engineering Design I	HÜ 2								
30	Physics for Engineers	VL 2	Analysis II	HÜ 1										
31	Physics for Engineers	GÜ 1	Analysis II	GÜ 1										
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.