Course of Study General Engineering Science (German program, 7 semester) (Study Cohort w22)

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**		**Signals and Systems**		**Introduction to Control Systems**		**Foundations of Management**		**Advanced Internship AIW/ ES**	
2	Chemistry I+II	VL 4	Electrical Engineering II: Alternating Current Networks and Basic Devices	VL 3	Technical Thermodynamics II	VL 2	Signals and Systems	VL 3	Introduction to Control Systems	VL 2	Introduction to Management	VL 3	Advanced Internship AIW/ ES: Preparation	SE 1
3	Chemistry I+II	HÜ 2	Electrical Engineering II: Alternating Current Networks and Basic Devices	GÜ 2	Technical Thermodynamics II	HÜ 1	Signals and Systems	GÜ 2	Introduction to Control Systems	GÜ 2	Management Tutorial	GÜ 2	Advanced Intenship AIW/ ES: Internship-accompanying Seminar	SE 1
4					Technical Thermodynamics II	GÜ 1								
5														
6														
7	**Electrical Engineering I: Direct Current Networks and Electromagnetic Fields**		**Fundamentals of Mechanical Engineering Design**		**Mathematics III**		**Fluid Dynamics**		**Measurement Technology for Mechanical Engineers**		**Electrical Machines and Actuators**			
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 Engineering	VL 2	Electrical Machines and Actuators	VL 3		
9					Analysis III	GÜ 1								
10	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	GÜ 2	Fundamentals of Mechanical Engineering Design	HÜ 2	Analysis III	HÜ 1	Fluid Mechanics	HÜ 2	Measurement Technology for Mechanical Engineering	HÜ 1	Electrical Machines and Actuators	HÜ 2		
11					Differential Equations 1	VL 2			Practical Course: Measurement and Control Systems	PR 2				
12					Differential Equations 1	GÜ 1								
13	**Mathematics I**		**Technical Thermodynamics I**		Differential Equations 1	HÜ 1	**Computational Mechanics**		**Electrical Engineering III: Circuit Theory and Transients**		**Semiconductor Circuit Design**			
14	Mathematics I	VL 4	Technical Thermodynamics I	VL 2			Computational Multibody Dynamics	IV 2	Circuit Theory	VL 3	Semiconductor Circuit Design	VL 3		
15	Mathematics I	HÜ 2	Technical Thermodynamics I	HÜ 1	**Engineering Mechanics III (Dynamics)**		Computational Mechanics	GÜ 2	Circuit Theory	GÜ 2	Semiconductor Circuit Design	GÜ 1		
16	Mathematics I	GÜ 2	Technical Thermodynamics I	GÜ 1	Engineering Mechanics III	VL 3	Computational Stuctural Mechanics	IV 2						
17					Engineering Mechanics III	GÜ 2								
18					Engineering Mechanics III	HÜ 1								
19			**Mathematics II**				**Advanced Mechanical Engineering Design (part 2)**		**Numerical Mathematics I**		**Mathematics IV**		**Bachelor Thesis**	
20			Mathematics II	VL 4			Advanced Mechanical Engineering Design II	VL 2	Numerical Mathematics I	VL 2	Complex Functions	VL 2		
21	**Computer Science for Engineers - Introduction and Overview**		Mathematics II	HÜ 2	**Advanced Mechanical Engineering Design (part 1)**		Advanced Mechanical Engineering Design II	HÜ 2	Numerical Mathematics I	GÜ 2	Complex Functions	GÜ 1		
22	Computer Science for Engineers - Introduction and Overview	VL 3	Mathematics II	GÜ 2	Advanced Mechanical Engineering Design I	VL 2	**Mechanical Engineering: Design (part 2)**				Complex Functions	HÜ 1		
23	Computer Science for Engineers - Introduction and Overview	GÜ 2			Advanced Mechanical Engineering Design I	HÜ 2	Team Project Design Methodology	PBL 2			Differential Equations 2	VL 2		
24					**Mechanical Engineering: Design (part 1)**		Mechanical Design Project II	PBL 3			Differential Equations 2	GÜ 1		
25					Embodiment Design and 3D-CAD Introduction and Practical Training	VL 2	**Fundamentals of Materials Science (part 2)**				Differential Equations 2	HÜ 1		
26					Mechanical Design Project I	PBL 3	Fundamentals of Materials Science II	VL 2						
27	**Engineering Mechanics I (Stereostatics)**		**Engineering Mechanics II (Elastostatics)**		**Fundamentals of Materials Science (part 1)**						**Computer Science for Engineers - Programming Concepts, Data Handling & Communication**			
28	Engineering Mechanics I	VL 2	Engineering Mechanics II	VL 2	Fundamentals of Materials Science I	VL 2					Computer Science for Engineers - Programming Concepts, Data Handling & Communication	VL 3		
29	Engineering Mechanics I	GÜ 2	Engineering Mechanics II	GÜ 2	Physical and Chemical Basics of Materials Science	VL 2					Computer Science for Engineers - Programming Concepts, Data Handling & Communication	GÜ 2		
30	Engineering Mechanics I	HÜ 1	Engineering Mechanics II	HÜ 2										
31														
32														

Non-technical 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.