Course of Study General Engineering Science (English program, 7 semester) (Study Cohort w19)

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 C Bachelor General Engineering Science (English program, 7 semester) (GESBS(7))
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	Semester 7	FormHrs/wk
1	**Chemistry (GES)**		**Technical Thermodynamics I**		**Technical Thermodynamics II**		**Mechanical Engineering: Design (part 2)**		**Computer Engineering**		**Foundations of Management**		**Advanced Internship AIW/ ES**	
2	Chemistry I	VL 2	Technical Thermodynamics I	VL 2	Technical Thermodynamics II	VL 2	Team Project Design Methodology	PBL 2	Computer Engineering	VL 3	Introduction to Management	VL 3	Advanced Internship AIW/ ES: Preparation	SE 1
3	Chemistry II	VL 2	Technical Thermodynamics I	HÜ 1	Technical Thermodynamics II	HÜ 1	Mechanical Design Project II	PBL 3	Computer Engineering	GÜ 1	Management Tutorial	GÜ 2	Advanced Intenship AIW/ ES: Internship-accompanying Seminar	SE 1
4	Chemistry I	HÜ 1	Technical Thermodynamics I	GÜ 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	**Linear Algebra**		**Mathematical Analysis**		**Mathematics III**		Advanced Mechanical Engineering Design II	VL 2	**Introduction to Control Systems**		**Mathematics IV**			
8	Linear Algebra	VL 4	Mathematical Analysis	VL 4	Analysis III	VL 2	Advanced Mechanical Engineering Design II	HÜ 2	Introduction to Control Systems	VL 2	Complex Functions	VL 2		
9	Linear Algebra	HÜ 2	Mathematical Analysis	HÜ 2	Analysis III	GÜ 1			Introduction to Control Systems	GÜ 2	Complex Functions	GÜ 1		
10	Linear Algebra	GÜ 2	Mathematical Analysis	GÜ 2	Analysis III	HÜ 1	**Fluid Dynamics**				Complex Functions	HÜ 1		
11					Differential Equations 1	VL 2	Fluid Mechanics	VL 3			Differential Equations 2	VL 2		
12					Differential Equations 1	GÜ 1	Fluid Mechanics	HÜ 2			Differential Equations 2	GÜ 1		
13					Differential Equations 1	HÜ 1			**Measurement Technology for Mechanical Engineers**		Differential Equations 2	HÜ 1		
14									Measurement Technology for Mechanical Engineering	VL 2	**Advanced Materials**			
15	**Electrical Engineering I**		**Electrical Engineering II**		**Engineering Mechanics III (GES)**		**Mechanics IV (Oscillations, Analytical Mechanics, Multibody Systems, Numerical Mechanics)**		Measurement Technology for Mechanical Engineering	HÜ 1	Advanced Materials Characterization	VL 2		
16	Electrical Engineering I	VL 3	Electrical Engineering II	VL 3	Mechanics III	HÜ 1	Mechanics IV	VL 3	Practical Course: Measurement and Control Systems	PR 2	Advanced Materials Design	VL 2		
17	Electrical Engineering I	GÜ 2	Electrical Engineering II	GÜ 2	Mechanics III	GÜ 2	Mechanics IV	GÜ 2			Advanced Materials Design	HÜ 2		
18					Mechanics III	VL 3	Mechanics IV	HÜ 1	**Advanced Mechanical Design Project**					
19									Advanced Mechanical Design Project	PBL 4	**Modeling, Simulation and Optimization (EN)**		**Bachelor Thesis**	
20											Modeling, Simulation and Optimization	IV 4		
21	**Mechanics I (GES)**		**Mechanics II (GES)**		**Mechanical Engineering: Design (part 1)**		**Signals and Systems**							
22	Mechanics I	VL 2	Mechanics II	VL 2	Embodiment Design and 3D-CAD	VL 2	Signals and Systems	VL 3						
23	Mechanics I	HÜ 3	Mechanics II	HÜ 2	Mechanical Design Project I	PBL 3	Signals and Systems	GÜ 2						
24					**Fundamentals of Materials Science (part 1)**									
25					Fundamentals of Materials Science I	VL 2								
26					Physical and Chemical Basics of Materials Science	VL 2			**Numerical Mathematics I**					
27	**Programming in C**		**Fundamentals of Mechanical Engineering Design (GES)**						Numerical Mathematics I	VL 2				
28	Programming in C	VL 1	Fundamentals of Mechanical Engineering	VL 2	**Advanced Mechanical Engineering Design (part 1)**				Numerical Mathematics I	GÜ 2				
29	Programming in C	PR 1	Fundamentals of Mechanical Engineering	GÜ 2	Advanced Mechanical Engineering Design I	VL 2								
30	**Physics for Engineers (GES)**				Advanced Mechanical Engineering Design I	HÜ 2								
31	Physics for Engineers	VL 2												
32	Physics for Engineers	GÜ 1												

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.