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

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

Legend:

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

LP	Semester 1	Form	Hrs/wk	Semester 2	Form	Hrs/wk	Semester 3	Form	Hrs/wk	Semester 4	Form	Hrs/wk	Semester 5	Form	Hrs/wk	Semester 6	Form	Hrs/wk	Semester 7	Form	Hrs/wk
1	**Chemistry (GES)**			**Technical Thermodynamics I**			**Technical Thermodynamics II**			**Mechanical Engineering: Design (part 2)**			**Computer Engineering**			**Foundations of Management**			**Advanced Internship GES**		
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			
3	Chemistry II	VL	2	Technical Thermodynamics I	HÜ	1	Technical Thermodynamics II	HÜ	1	Mechanical Design Project II	PBL	3	Computer Engineering	UE	1	Management Tutorial	HÜ	2			
	Chemistry I	HÜ	1	Technical Thermodynamics I	UE	1	Technical Thermodynamics II	UE	1												
	Chemistry II	HÜ	1																		
4										**Fundamentals of Materials Science (part 2)**											
5										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**			**Semiconductor Circuit Design**					
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	Semiconductor Circuit Design	VL	3			
	Linear Algebra	HÜ	2	Mathematical Analysis	HÜ	2	Analysis III	UE	1				Introduction to Control Systems	UE	2	Semiconductor Circuit Design	UE	1			
	Linear Algebra	UE	2	Mathematical Analysis	UE	2	Analysis III	HÜ	1												
9							Differential Equations 1	VL	2	**Fluid Dynamics**											
10							Differential Equations 1	UE	1	Fluid Mechanics	VL	3									
11							Differential Equations 1	HÜ	1	Fluid Mechanics	HÜ	2									
12																					
13													**Measurement Technology for Mechanical and Process Engineers**			**Mathematics IV**					
14													Measurement Technology for Mechanical and Process Engineers	VL	2	Complex Functions	VL	2			
15	**Electrical Engineering I**			**Electrical Engineering II**			**Mechanics III (GES)**			**Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)**						Complex Functions	UE	1			
16	Electrical Engineering I	VL	3	Electrical Engineering II	VL	3	Mechanics III	HÜ	1	Mechanics IV	VL	3	Measurement Technology for Mechanical and Process Engineers	HÜ	1	Complex Functions	HÜ	1			
17	Electrical Engineering I	UE	2	Electrical Engineering II	UE	2	Mechanics III	UE	2	Mechanics IV	UE	2				Differential Equations 2	VL	2			
18							Mechanics III	VL	3	Mechanics IV	HÜ	1	Practical Course: Measurement and Control Systems	PR	2	Differential Equations 2	UE	1			
																Differential Equations 2	HÜ	1			
19													**Electrical Engineering III: Circuit Theory and Transients**			**Electrical Machines and Actuators**			**Bachelor Thesis**		
20													Circuit Theory	VL	3	Electrical Machines and Actuators	VL	3			
21	**Mechanics I (GES)**			**Mechanics II (GES)**			**Mechanical Engineering: Design (part 1)**			**Signals and Systems**			Circuit Theory	UE	2	Electrical Machines and	HÜ	2			
22																					
23	Mechanics I	VL	2	Mechanics II	VL	2	Embodiment Design and	VL	2	Signals and Systems	VL	3									

	Mechanics I HÜ 3	Mechanics II HÜ 2	3D-CAD Mechanical Design Project I PBL3	Signals and Systems UE 2		Actuators
24						
25			**Fundamentals of Materials Science (part 1)** Fundamentals of Materials Science I VL 2 Physical and Chemical Basics of Materials Science VL 2			
26					**Simulation and Design of Mechatronic Systems** Simulation and Design of Mechatronic Systems VL 2 Simulation and Design of Mechatronic Systems HÜ 1 Simulation and Design of Mechatronic Systems PR 1	
27	**Programming in C** Programming in C VL 1 Programming in C PR 1	**Fundamentals of Mechanical Engineering Design (GES)** Fundamentals of Mechanical Engineering VL 2 Fundamentals of Mechanical Engineering UE 2				
28						
29	**Physics for Engineers (GES)** Physics for Engineers VL 2 Physics for Engineers UE 1		**Advanced Mechanical Engineering Design (part 1)** Advanced Mechanical Engineering Design I VL 2 Advanced Mechanical Engineering Design I HÜ 2			
30						
31						
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.