Course of Study General Engineering Science (English program) (Study Cohort w14)

Sample course plan B Bachelor General Engineering Science (English program) (GESBS)
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
1	**Chemistry (GES)**			**Physics for Engineers (GES) (part 2)**			**Technical Thermodynamics II**			**Mechanical Engineering: Design (part 2)**			**Introduction to Control Systems**			**Foundations of Management**		
2	Chemistry I	VL	2	Physics-Lab for ET/IIW-Engineers	PR	1	Technical Thermodynamics II	VL	2	Team Project Design Methodology	POL	2	Introduction to Control Systems	VL	2	Introduction to Management	VL	4
3	Chemistry II	VL	2	**Fundamentals of Mechanical Engineering Design**			Technical Thermodynamics II	HÜ	1	Mechanical Design Project II	TT	3	Introduction to Control Systems	UE	2	Project Entrepreneurship	POL	2
4	Chemistry I	HÜ	1	Fundamentals of Mechanical Engineering Design	VL	2	Technical Thermodynamics II	UE	1	**Fundamentals of Materials Science (part 2)**								
5	Chemistry II	HÜ	1	Fundamentals of Mechanical Engineering Design	HÜ	2				Fundamentals of Materials Science II	VL	2						
6										**Advanced Mechanical Engineering Design (part 2)**								
7	**Linear Algebra**						**Computer Engineering**			Advanced Mechanical Engineering Design II	VL	2	**Measurement Technology for Mechanical and Process Engineers**			**Semiconductor Circuit Design**		
8	Linear Algebra	VL	4				Computer Engineering	VL	3	Advanced Mechanical Engineering Design II	HÜ	2	Measurement Technology for Mechanical and Process Engineers	VL	2	Semiconductor Circuit Design	VL	3
	Linear Algebra	HÜ	2				Computer Engineering	UE	1				Measurement Technology for Mechanical and Process Engineers	HÜ	1	Semiconductor Circuit Design	UE	1
	Linear Algebra	UE	2										Practical Course: Measurement and Control Systems	PR	2			
9				**Technical Thermodynamics I**						**Signals and Systems**								
10				Technical Thermodynamics I	VL	2				Signals and Systems	VL	3						
11				Technical Thermodynamics I	HÜ	1				Signals and Systems	HÜ	1						
12				Technical Thermodynamics I	UE	1												
13							**Mathematics III**						**Simulation of Dynamic Systems and Reliability**			**Mathematics IV**		
14							Analysis III	VL	2				Simulation of Dynamic Systems	VL	2	Complex Functions	VL	2
15	**Electrical Engineering I**			**Mathematical Analysis**			Analysis III	UE	1	**Fluid Dynamics**			Reliability of Dynamic Systems	VL	2	Complex Functions	UE	1
16	Electrical Engineering I	VL	3	Mathematical Analysis	VL	4	Analysis III	HÜ	1	Fluid Mechanics	VL	3	Simulation of Dynamic Systems	UE	1	Complex Functions	HÜ	1
17	Electrical Engineering I	UE	2	Mathematical Analysis	HÜ	2	Differential Equations 1	VL	2	Fluid Mechanics	HÜ	1	Reliability of Dynamic Systems	UE	1	Differential Equations 2	VL	2
18				Mathematical Analysis	UE	2	Differential Equations 1	UE	1							Differential Equations 2	UE	1
19							Differential Equations 1	HÜ	1				**Electrical Engineering III: Circuit Theory and Transients**			**Bachelor Thesis**		
20													Circuit Theory	VL	3			
21	**Mechanics I (GES)**						**Mechanics III (GES)**			**Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)**			Circuit Theory	UE	2			
22	Mechanics I	VL	2				Mechanics III	HÜ	1	Mechanics IV	VL	3						
23	Mechanics I	HÜ	3	**Electrical Engineering II**			Mechanics III	UE	2	Mechanics IV	UE	2						
24				Electrical Engineering II	VL	3	Mechanics III	VL	3	Mechanics IV	HÜ	1						
25				Electrical Engineering II	UE	2												
26																		
27	**Physics for Engineers (GES) (part 1)**						**Mechanical Engineering: Design (part 1)**			**Fundamentals of Production and Quality Management**								
28	Physics for Engineers	VL	2				Embodiment Design and 3D-CAD	VL	2	Production Process Organization	VL	2						
29	Physics for Engineers	UE	1	**Mechanics II (GES)**			Mechanical Design Project I	TT	3	Quality Management	VL	2						
30				Mechanics II	VL	2	**Fundamentals of Materials Science (part 1)**											
31				Mechanics II	HÜ	2	Fundamentals of Materials Science I	VL	2									
32							Physical and Chemical Basics of Materials Science	VL	2									
33																		

34			**Advanced Mechanical Engineering Design (part 1)**
35		**Programming in C**	Advanced Mechanical Engineering Design I VL 2
36		Programming in C VL 1 Programming in C PR 1	Advanced Mechanical Engineering Design I HÜ 2

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.