Course of Study General Engineering Science (English program) (Study Cohort w15)

Sample course plan C Bachelor General Engineering Science (English program) (GESBS) Specialisation Mechanical Engineering, Focus Materials in Engineering Sciences

LP

Semester 1

Core qualification Compulsory Specialisation Compulsory Focus Compulsory Core qualification Elective Specialisation Elective Focus Elective Compulsory Compulsory Compulsory FormHrs/wk Semester 2 FormHrs/wk Semester 3 FormHrs/wk Semester 4 FormHrs/wk Semester 5

Legend:

Thesis Compulsory

FormHrs/wk Semester 6

Interdisciplinary complement

FormHrs/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/ AIW/ GES 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	Technical Thermodynamics II HÜ 1	Mechanical Design Project II TT 3	Introduction to Control Systems UE 2	Project Entrepreneurship POL 2
	Chemistry I HÜ 1 Chemistry II HÜ 1	Design	Technical Thermodynamics II UE 1			
4	Chemistry II HÜ 1	Fundamentals of Mechanical VL 2		Fundamentals of Materials Science (part 2)		
5		Engineering Design		Fundamentals of Materials Science II VL 2		
6		Fundamentals of Mechanical HÜ 2		Advanced Mechanical Engineering Design		
7	Linear Algebra	Engineering Design	Computer Engineering	(part 2)	Measurement Technology for Mechanical and	Structural Materials (part 2)
8	Linear Algebra VL 4		Computer Engineering VL 3	Advanced Mechanical Engineering VL 2	Process Engineers	Fundamentals of Mechanical VL 2
8	Linear Algebra HÜ 2		Computer Engineering UE 1	Design II Advanced Mechanical Engineering HÜ 2	Measurement Technology for VL 2	Properties of Materials
	Linear Algebra UE 2			Design II	Mechanical and Process Engineers	
9		Technical Thermodynamics I		Signals and Systems	Measurement Technology for HÜ 1	
	-	Technical Thermodynamics I VL 2		Signals and Systems VL 3	Mechanical and Process Engineers Practical Course: Measurement and PR 2	
10		Technical Thermodynamics I HÜ 1		Signals and Systems HÜ 1	Control Systems	Enhanced Fundamentals of Materials Science
11		Technical Thermodynamics I UE 1				Fundamentals of Metallic Materials VL 2 Fundamentals of Ceramic and VL 2
12						Polymer Materials
13			Mathematics III		Numerical Mathematics I	Fundamentals of Ceramic and HÜ 1
			Analysis III VL 2		Numerical Mathematics I VL 2	Polymer Materials
14			Analysis III UE 1		Numerical Mathematics I UE 2	
15	Electrical Engineering I	Mathematical Analysis	Analysis III HÜ 1	Fluid Dynamics		
16	Electrical Engineering I VL 3	Mathematical Analysis VL 4	Differential Equations 1 VL 2	Fluid Mechanics VL 3		Bachelor Thesis
17	Electrical Engineering I UE 2	Mathematical Analysis HÜ 2 Mathematical Analysis UE 2	Differential Equations 1 UE 1	Fluid Mechanics HÜ 1		
18		Mathematical Analysis DE 2	Differential Equations 1 HÜ 1			
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19					Structural Materials (part 1)	
20					Welding Technology VL 3	
21	Mechanics I (GES)		Mechanics III (GES)	Mechanics IV (Kinetics II, Oscillations,		
22	Mechanics I VL 2		Mechanics III HÜ 1	Analytical Mechanics, Multibody Systems)	Material Science Laboratory	
23	Mechanics I HÜ 3	Electrical Engineering II	Mechanics III UE 2	Mechanics IV VL 3	Companion Lecture for Materials VL 2	
		Electrical Engineering II VL 3	Mechanics III VL 3	Mechanics IV UE 2	Science Laboratory	
24		Electrical Engineering II UE 2		Mechanics IV HÜ 1	Material Science Laboratory PR 4	
25						
26						
27	Physics for Engineers (GES) (part 1)		Mechanical Engineering: Design (part 1)	Advanced Materials		
	Physics for Engineers VL 2		Embodiment Design and 3D-CAD VL 2	Advanced Materials Characterization VL 2		
28	Physics for Engineers UE 1		Mechanical Design Project I TT 3	Advanced Materials Design VL 2		
29		Mechanics II (GES)		Advanced Materials Design HÜ 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 VL 2			
	-		Materials Science		1	
33						

34				Advanced Mechanical Engineering Design	
35		Programming in C		(part 1) Advanced Mechanical Engineering VL 2 Design I	
36	1	Programming in CVL1Programming in CPR1	VL 1		
			PR 1	Advanced Mechanical Engineering HÜ 2	
				Design I	
	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.