

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

Sample course plan A Bachelor General Engineering Science (English program) (GESBS)
Specialisation Mechanical Engineering, Focus Energy Systems

Legend:

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

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																			
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	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			Technical Thermodynamics II	UE 1	Fundamentals of Materials Science (part 2)	Fundamentals of Materials Science II	VL 2	Advanced Mechanical Engineering Design (part 2)	Advanced Mechanical Engineering Design II	Measurement Technology for Mechanical and Process Engineers	Reciprocating Machinery (part 2)																		
5	Chemistry II	HÜ 1			Fundamentals of Mechanical Engineering Design	VL 2			Advanced Mechanical Engineering Design II					VL 2	Measurement Technology for Mechanical and Process Engineers	VL 2	Internal Combustion Engines I	VL 2													
6	Linear Algebra	VL 4			Fundamentals of Mechanical Engineering Design	HÜ 2			Advanced Mechanical Engineering Design II					HÜ 2	Measurement Technology for Mechanical and Process Engineers	HÜ 1	Internal Combustion Engines I	HÜ 1													
7					Linear Algebra	UE 2			Computer Engineering					Computer Engineering	VL 3	Signals and Systems	VL 3	Practical Course: Measurement and Control Systems	Bachelor Thesis												
8					Linear Algebra	HÜ 2														Computer Engineering	UE 1	Signals and Systems	HÜ 1	Gas and Steam Power Plants	Gas and Steam Power Plants	VL 3					
9	Linear Algebra	UE 2			Technical Thermodynamics I	Technical Thermodynamics I														VL 2	Signals and Systems	HÜ 1	Gas and Steam Power Plants				HÜ 2				
10	Electrical Engineering I	VL 3	Technical Thermodynamics I	HÜ 1																								Fluid Dynamics	Fluid Mechanics	VL 3	Computational Fluid Dynamics I
11			Technical Thermodynamics I	UE 1			Fluid Mechanics	HÜ 1		Computational Fluid Dynamics I	HÜ 2																				
12			Technical Thermodynamics I	UE 1			Mathematics III	Analysis III				VL 2	Computational Fluid Dynamics I																		
13	Electrical Engineering I	UE 2	Analysis III	UE 1																											
14			Analysis III	HÜ 1					Mechanics III					UE 2																	
15			Analysis III	VL 2					Mechanics III					VL 3																	
16	Electrical Engineering I	VL 3	Mathematical Analysis	VL 4	Differential Equations 1	VL 2			Fluid Mechanics					VL 3	Heat Transfer	Heat Transfer	VL 3														
17	Electrical Engineering I	UE 2	Mathematical Analysis	HÜ 2	Differential Equations 1	UE 1			Fluid Mechanics					HÜ 1				Electrical Machines	Electrical Machines	VL 3											
18	Mechanics I (GES)	VL 2	Mathematical Analysis	UE 2	Differential Equations 1	HÜ 1			Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)	Mechanics IV	VL 3			Heat Transfer							HÜ 1										
19			Mechanics I	HÜ 3	Electrical Engineering II	Electrical Engineering II	VL 3	Mechanics IV				UE 2																			
20													Mechanics I									HÜ 3	Electrical Engineering II	UE 2	Mechanics IV	HÜ 1					
21	Physics for Engineers (GES) (part 1)	VL 2																					Mechanics II (GES)	Mechanics II			VL 2				
22			Physics for Engineers	UE 1																								Mathematics III	Analysis III	VL 2	
23													Physics for Engineers		UE 1	Mechanics III	UE 2														
24	Physics for Engineers (GES) (part 1)	VL 2																Mechanical Engineering: Design (part 1)	Embodiment Design and 3D-CAD	VL 2											
25			Physics for Engineers	UE 1					Mechanical Design Project I	TT 3																					
26					Physics for Engineers	UE 1	Electrical Machines	VL 3																							
27	Physics for Engineers (GES) (part 1)	VL 2									Fundamentals of Materials Science (part 1)	Fundamentals of Materials Science I	VL 2																		
28			Physics for Engineers	UE 1										Physical and Chemical Basics of	VL 2																
29					Physics for Engineers	UE 1															Materials Science										
30	Physics for Engineers (GES) (part 1)	VL 2														Reciprocating Machinery (part 1)	Fundamentals of Reciprocating					VL 1									
31			Physics for Engineers	UE 1														Engines and Turbomachinery - Part													
32					Physics for Engineers	UE 1			Reciprocating Engines																						

				reciprocating engines Fundamentals of Reciprocating Engines and Turbomachinery - Part Reciprocating Engines HÜ 1
33				
34				
35	Programming in C		Advanced Mechanical Engineering Design (part 1)	
36	Programming in C VL 1		Advanced Mechanical Engineering Design I VL 2	
	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.