

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

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

				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.