

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 Energy Systems

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	Semester 2	Form/hrs	Semester 3	Form/hrs	Semester 4	Form/hrs	Semester 5	Form/hrs	Semester 6	Form/hrs	Semester 7	Form/hrs/wk
1	Chemistry (GES) Chemistry I Chemistry II Chemistry I Chemistry II	VL 2 VL 2 HÜ 1 HÜ 1	Technical Thermodynamics I Technical Thermodynamics I Technical Thermodynamics I Technical Thermodynamics I	VL 2 VL 2 HÜ 1 UE 1	Technical Thermodynamics II Technical Thermodynamics II Technical Thermodynamics II Technical Thermodynamics II	VL 2 VL 2 HÜ 1 UE 1	Mechanical Engineering: Design (part 2) Team Project Design Methodology Mechanical Design Project II	PBL2 PBL3	Introduction to Control Systems Introduction to Control Systems Introduction to Control Systems	VL 2 VL 2 UE 2	Foundations of Management Introduction to Management Management Tutorial	VL 3 VL 2 HÜ 2	Advanced Internship GES	
2														
3														
4														
5														
6														
7	Linear Algebra Linear Algebra Linear Algebra Linear Algebra	VL 4 HÜ 2 UE 2	Mathematical Analysis Mathematical Analysis Mathematical Analysis Mathematical Analysis	VL 4 HÜ 2 UE 2	Mathematics III Analysis III Analysis III Analysis III Differential Equations 1 Differential Equations 1 Differential Equations 1	VL 2 UE 1 HÜ 1 VL 2 UE 1 HÜ 1	Fluid Dynamics Fluid Mechanics Fluid Mechanics	VL 3 HÜ 2	Measurement Technology for Mechanical and Process Engineers Measurement Technology for Mechanical and Process Engineers Measurement Technology for Mechanical and Process Engineers	VL 2 HÜ 1	Advanced Mechanical Engineering Design (part 2) Advanced Mechanical Engineering Design II Advanced Mechanical Engineering Design II	VL 2 HÜ 2	Reciprocating Machinery (part 2) Internal Combustion Engines I Internal Combustion Engines I	VL 2 HÜ 1
8														
9														
10														
11														
12														
13	Electrical Engineering I Electrical Engineering I Electrical Engineering I	VL 3 UE 2	Electrical Engineering II Electrical Engineering II Electrical Engineering II	VL 3 UE 2	Mechanics III (GES) Mechanics III Mechanics III Mechanics III	HÜ 1 UE 2 VL 3	Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems) Mechanics IV Mechanics IV Mechanics IV	VL 3 UE 2 HÜ 1	Advanced Mechanical Engineering Design (part 1) Advanced Mechanical Engineering Design I Advanced Mechanical Engineering Design I	VL 2 HÜ 2	Electrical Machines and Actuators Electrical Machines and Actuators Electrical Machines and Actuators	VL 3 HÜ 2	Bachelor Thesis	
14														
15														
16														
17														
18														
19	Signals and Systems Signals and Systems Signals and Systems	VL 3 UE 2						Heat Transfer Heat Transfer Heat Transfer	VL 3 HÜ 2	Renewables and Energy Systems Renewable Energy Energy Systems and	VL 2 VL 2			
20														
21														
22														
23	Mechanics I (GES) Mechanics I	VL 2	Mechanics II (GES) Mechanics II	VL 2	Computer Engineering Computer Engineering	VL 3			Reciprocating Machinery					

	Mechanics I HÜ 3	Mechanics II HÜ 2	Computer Engineering UE 1		(part 1) Fundamentals of Reciprocating Engines and Turbomachinery - Part Reciprocating Engines VL 1 Fundamentals of Reciprocating Engines and Turbomachinery - Part Reciprocating Engines HÜ 1	Energy Systems Energy Industry VL 1 Power Industry VL 1 Renewable Energy UE 1	
24							
25							
26							
27							
28	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	Mechanical Engineering: Design (part 1) Embodiment Design and 3D-CAD VL 2		Computational Fluid Dynamics I Computational Fluid Dynamics I VL 2 Computational Fluid Dynamics I HÜ 2		
29	Physics for Engineers (GES) Physics for Engineers VL 2 Physics for Engineers UE 1	Fundamentals of Mechanical Engineering UE 2	Mechanical Design Project I PBL3				
30							
31							
32							
33					Fundamentals of Materials Science (part 1) Fundamentals of Materials Science I VL 2 Physical and Chemical Basics of Materials Science VL 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.