

Course of Study General Engineering Science (English program, 7 semester) (Study Cohort w19)

Sample course plan B Bachelor General Engineering Science (English program, 7 semester) (GESBS(7))
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	FormHrs	Semester 2	FormHrs	Semester 3	FormHrs	Semester 4	FormHrs	Semester 5	FormHrs	Semester 6	FormHrs	Semester 7	FormHrs/wk													
1	Chemistry (GES)		Technical Thermodynamics I		Technical Thermodynamics II		Mechanical Engineering: Design (part 2)		Computer Engineering		Foundations of Management		Advanced Internship GES														
2															Chemistry I	VL 2	Technical Thermodynamics I	VL 2	Technical Thermodynamics II	VL 2	Team Project Design Methodology	PBL2	Computer Engineering	VL 3	Introduction to Management	VL 3	
3															Chemistry II	VL 2	Technical Thermodynamics I	HÜ 1	Technical Thermodynamics II	HÜ 1	Mechanical Design Project II	PBL3	Computer Engineering	UE 1	Management Tutorial	HÜ 2	
4															Chemistry I	HÜ 1	Technical Thermodynamics I	UE 1	Technical Thermodynamics II	UE 1	Fundamentals of Materials Science (part 2)						
5															Chemistry II	HÜ 1	Technical Thermodynamics I		Technical Thermodynamics II								Fundamentals of Materials Science II
6																					Advanced Mechanical Engineering Design (part 2)						
7	Linear Algebra		Mathematical Analysis		Mathematics III		Advanced Mechanical Engineering Design II		Introduction to Control Systems		Semiconductor Circuit Design																
8														Linear Algebra	VL 4	Mathematical Analysis	VL 4	Analysis III	VL 2	Advanced Mechanical Engineering Design II	VL 2	Introduction to Control Systems	VL 2	Semiconductor Circuit Design	VL 3		
9														Linear Algebra	HÜ 2	Mathematical Analysis	HÜ 2	Analysis III	UE 1	Advanced Mechanical Engineering Design II	HÜ 2	Introduction to Control Systems	UE 2	Semiconductor Circuit Design	UE 1		
10														Linear Algebra	UE 2	Mathematical Analysis	UE 2	Analysis III	HÜ 1	Fluid Dynamics							
11																		Differential Equations 1	VL 2							Fluid Mechanics	VL 3
12																		Differential Equations 1	UE 1							Fluid Mechanics	HÜ 2
13					Differential Equations 1	HÜ 1																					
14									Measurement Technology for Mechanical and Process Engineers		Mathematics IV																
15	Electrical Engineering I		Electrical Engineering II		Mechanics III (GES)		Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)				Complex Functions	VL 2															
16											Electrical Engineering I	VL 3		Electrical Engineering II	VL 3	Mechanics III	HÜ 1	Mechanics IV	VL 3	Measurement Technology for Mechanical and Process Engineers	VL 2	Complex Functions	UE 1				
17											Electrical Engineering I	UE 2		Electrical Engineering II	UE 2	Mechanics III	UE 2	Mechanics IV	UE 2	Measurement Technology for Mechanical and Process Engineers	HÜ 1	Complex Functions	HÜ 1				
18																Mechanics III	VL 3	Mechanics IV	HÜ 1	Measurement Technology for Mechanical and Process Engineers	PR 2	Differential Equations 2	VL 2				
19									Practical Course: Measurement and Control Systems		Differential Equations 2	UE 1	Bachelor Thesis														
20											Differential Equations 2	HÜ 1															
21																											
22	Mechanics I (GES)		Mechanics II (GES)		Mechanical Engineering: Design (part 1)		Signals and Systems				Electrical Engineering III: Circuit Theory and Transients		Fundamentals of Production and Quality Management														
23															Mechanics I	VL 2	Mechanics II	VL 2	Embodiment Design and	VL 2	Signals and Systems	VL 3	Circuit Theory	VL 3	Production Process Organization	VL 2	
23											Circuit Theory	UE 2	Quality Management	VL 2													

	Mechanics I HÜ 3	Mechanics II HÜ 2	3D-CAD Mechanical Design PBL3 Project I	Signals and Systems UE 2			
24							
25			Fundamentals of Materials Science (part 1)				
26			Fundamentals of Materials Science I VL 2			Simulation and Design of Mechatronic Systems	
27	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	Physical and Chemical Basics of Materials Science VL 2			Simulation and Design of Mechatronic Systems VL 2 Simulation and Design of Mechatronic Systems HÜ 1 Simulation and Design of Mechatronic Systems PR 1	
28		Fundamentals of Mechanical Engineering UE 2					
29	Physics for Engineers (GES)		Advanced Mechanical Engineering Design (part 1)				
30	Physics for Engineers VL 2 Physics for Engineers UE 1		Advanced Mechanical Engineering Design I VL 2 Advanced Mechanical Engineering Design I HÜ 2				
31							
32							
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.