

# Course of Study General Engineering Science (English program, 7 semester) (Study Cohort w17)

Sample course plan A Bachelor General Engineering Science (English program, 7 semester) (GESBS(7))  
Specialisation Mechanical Engineering, Focus Materials in Engineering Sciences

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	<b>Chemistry (GES)</b>		<b>Technical Thermodynamics I</b>		<b>Technical Thermodynamics II</b>		<b>Mechanical Engineering: Design (part 2)</b>		<b>Computer Engineering</b>		<b>Foundations of Management</b>		<b>Advanced Internship GES</b>													
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						
5															Chemistry II	HÜ 1	Technical Thermodynamics I		Technical Thermodynamics II		<b>Fundamentals of Materials Science (part 2)</b>					
6																					Fundamentals of Materials Science II	VL 2				
7	<b>Linear Algebra</b>		<b>Mathematical Analysis</b>		<b>Mathematics III</b>		<b>Advanced Mechanical Engineering Design (part 2)</b>		<b>Introduction to Control Systems</b>		<b>Enhanced Fundamentals of Materials Science</b>															
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	Enhanced Fundamentals: Metals	VL 2	
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	Enhanced Fundamentals: Ceramics and Polymers	VL 2	
10														Linear Algebra	UE 2	Mathematical Analysis	UE 2	Analysis III	HÜ 1					Enhanced Fundamentals: Ceramics and Polymers	HÜ 1	
11																		Differential Equations 1	VL 2	<b>Fluid Dynamics</b>						
12																		Differential Equations 1	UE 1	Fluid Mechanics	VL 3					
13					Differential Equations 1	HÜ 1	Fluid Mechanics	HÜ 2																		
14	<b>Electrical Engineering I</b>		<b>Electrical Engineering II</b>		<b>Mechanics III (GES)</b>		<b>Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)</b>		<b>Measurement Technology for Mechanical and Process Engineers</b>		<b>Structural Materials (part 2)</b>															
15														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	Fundamentals of Mechanical Properties of Materials	VL 2	
16														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	<b>Electrical Machines and Actuators</b>		
17																		Mechanics III	VL 3	Mechanics IV	HÜ 1	Measurement Technology for Mechanical and Process Engineers	PR 2	Electrical Machines and Actuators	VL 3	
18																				Mechanics IV	HÜ 1	Practical Course: Measurement and Control Systems		Electrical Machines and Actuators	HÜ 2	
19																										
20									<b>Numerical Mathematics I</b>				<b>Bachelor Thesis</b>													
21	<b>Mechanics I (GES)</b>		<b>Mechanics II (GES)</b>		<b>Mechanical Engineering: Design (part 1)</b>		<b>Signals and Systems</b>		Numerical Mathematics I	VL 2																
22									Mechanics I	VL 2	Mechanics II	VL 2		Signals and Systems	VL 3	Numerical Mathematics	UE 2									

23	Mechanics I HÜ 3	Mechanics II HÜ 2	Embodiment Design and 3D-CAD VL 2 Mechanical Design Project I PBL3	Signals and Systems UE 2	I
24					
25					
26					
27	<b>Programming in C</b> Programming in C VL 1 Programming in C PR 1	<b>Fundamentals of Mechanical Engineering (GES)</b> Fundamentals of Mechanical Engineering VL 2 Fundamentals of Mechanical Engineering UE 2	Fundamentals of Materials Science (part 1) Fundamentals of Materials Science I VL 2 Physical and Chemical Basics of Materials Science VL 2		Structural Materials (part 1) Welding Technology VL 3
28					
29	<b>Physics for Engineers (GES)</b>		<b>Advanced Mechanical Engineering Design (part 1)</b> Advanced Mechanical Engineering Design I VL 2 Advanced Mechanical Engineering Design I HÜ 2		<b>Material Science Laboratory</b> Companion Lecture for Materials Science Laboratory VL 2 Material Science Laboratory PR 4
30	Physics for Engineers VL 2 Physics for Engineers UE 1				
31					
32					
33					
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.