

# Course of Study General Engineering Science (English program, 7 semester) (Study Cohort w16)

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	Form	Semester 2	Form	Semester 3	Form	Semester 4	Form	Semester 5	Form	Semester 6	Form	Semester 7	Form												
1	<b>Chemistry (GES)</b>	VL 2	<b>Fundamentals of Mechanical Engineering Design</b>	VL 2	<b>Technical Thermodynamics II</b>	VL 2	<b>Mechanical Engineering: Design (part 2)</b>	PBL2	<b>Computer Engineering</b>	VL 3	<b>Foundations of Management</b>	VL 3	<b>Advanced Internship GES</b>													
2														Chemistry I												
3														Chemistry II		Fundamentals of Mechanical Engineering Design		Technical Thermodynamics II		Team Project Design Methodology		Computer Engineering		Introduction to Management		
														Chemistry I	HÜ 1			Technical Thermodynamics II	HÜ 1	Mechanical Design Project II		Computer Engineering	UE 1	Management Tutorial	HÜ 2	
														Chemistry II	HÜ 1	Fundamentals of Mechanical Engineering Design	HÜ 2	Technical Thermodynamics II								
4																		Technical Thermodynamics II	UE 1							
5																				<b>Fundamentals of Materials Science (part 2)</b>						
6							Fundamentals of Materials Science II	VL 2																		
7	<b>Linear Algebra</b>	VL 4	<b>Technical Thermodynamics I</b>	VL 2	<b>Mathematics III</b>	VL 2	<b>Advanced Mechanical Engineering Design (part 2)</b>	VL 2	<b>Introduction to Control Systems</b>	VL 2	<b>Enhanced Fundamentals of Materials Science</b>	VL 2	<b>Bachelor Thesis</b>													
8														Linear Algebra		Analysis III	UE 1	Advanced Mechanical Engineering Design II		Introduction to Control Systems		Enhanced Fundamentals: Metals				
														Linear Algebra	HÜ 2	Technical Thermodynamics I	HÜ 1	Analysis III	HÜ 1	Advanced Mechanical Engineering Design II	HÜ 2	Introduction to Control Systems	UE 2	Enhanced Fundamentals: Ceramics and Polymers		
														Linear Algebra	UE 2	Technical Thermodynamics I	UE 1	Differential Equations 1	VL 2					Enhanced Fundamentals: Ceramics and Polymers		
9																		Differential Equations 1	UE 1	<b>Fluid Dynamics</b>						
10																		Differential Equations 1	UE 1	Fluid Mechanics	VL 3					
11																		Differential Equations 1	HÜ 1	Fluid Mechanics	HÜ 2					
12																										
13			<b>Mathematical Analysis</b>						<b>Measurement Technology for Mechanical and Process Engineers</b>		<b>Structural Materials (part 2)</b>															
14			Mathematical Analysis	VL 4					Measurement Technology for Mechanical and Process Engineers	VL 2	Fundamentals of Mechanical Properties of Materials	VL 2														
15	<b>Electrical Engineering I</b>	VL 3	Mathematical Analysis	HÜ 2	<b>Mechanics III (GES)</b>	HÜ 1	<b>Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)</b>	VL 3	<b>Measurement Technology for Mechanical and Process Engineers</b>	HÜ 1	<b>Electrical Machines</b>	VL 3														
16													Electrical Engineering I	UE 2	Mechanics III	UE 2	Mechanics IV	UE 2	Measurement Technology for Mechanical and Process Engineers		Electrical Machines	HÜ 2				
17													Electrical Engineering I	UE 2	Mathematical Analysis	UE 2	Mechanics III	VL 3	Mechanics IV	HÜ 1	Measurement Technology for Mechanical and Process Engineers					
18																			Mechanics IV	HÜ 1	Practical Course: Measurement and Control Systems	PR 2				
19																										
20									<b>Numerical Mathematics I</b>																	
21									Numerical Mathematics I	VL 2																
22	<b>Mechanics I (GES)</b>	VL 2	<b>Electrical Engineering II</b>	VL 3	<b>Mechanical Engineering: Design (part 1)</b>	VL 2	<b>Signals and Systems</b>	VL 3	<b>Numerical Mathematics I</b>	UE 2																
23													Electrical Engineering II	UE 2	Embodiment Design and 3D-CAD	TT 3	Signals and Systems	HÜ 1								

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