Course of Study General Engineering Science (English program, 7 semester) (Study Cohort w18)

Sample course plan A Bachelor General Engineering Science (English program, 7 semester) (GESBS(7))
Specialisation Biomedical Engineering

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/wk	Semester 2	Form	Hrs/wk	Semester 3	Form	Hrs/wk	Semester 4	Form	Hrs/wk	Semester 5	Form	Hrs/wk	Semester 6	Form	Hrs/wk	Semester 7	Form	Hrs/wk
1	**Chemistry (GES)**			**Technical Thermodynamics I**			**Technical Thermodynamics II**			**Fundamentals of Materials Science (part 2)**			**Introduction to Control Systems**			**Foundations of Management**			**Advanced Internship AIW/ GES**		
2	Chemistry I	VL	2	Technical Thermodynamics I	VL	2	Technical Thermodynamics II	VL	2	Fundamentals of Materials Science II	VL	2	Introduction to Control Systems	VL	2	Introduction to Management	VL	3			
	Chemistry II	VL	2																		
3	Chemistry I	HÜ	1	Technical Thermodynamics I	HÜ	1	Technical Thermodynamics II	HÜ	1	**Signals and Systems**			Introduction to Control Systems	UE	2	Management Tutorial	UE	2			
4	Chemistry II	HÜ	1							Signals and Systems	VL	3									
5				Technical Thermodynamics I	UE	1	Technical Thermodynamics II	UE	1	Signals and Systems	UE	2									
6																					
7	**Linear Algebra**			**Mathematical Analysis**			**Mathematics III**						**Mechanical Engineering: Design (part 1)**			**Mechanical Engineering: Design (part 2)**					
8	Linear Algebra	VL	4	Mathematical Analysis	VL	4	Analysis III	VL	2				Embodiment Design and 3D-CAD	VL	2	Team Project Design Methodology	PBL	2			
9	Linear Algebra	HÜ	2	Mathematical Analysis	HÜ	2	Analysis III	UE	1	**Fluid Dynamics**			Mechanical Design Project I	PBL	3	Mechanical Design Project II	PBL	3			
	Linear Algebra	UE	2	Mathematical Analysis	UE	2	Analysis III	HÜ	1	Fluid Mechanics	VL	3									
10							Differential Equations 1	VL	2	Fluid Mechanics	HÜ	2	**Numerical Mathematics I**			**Introduction into Medical Technology and Systems**					
11							Differential Equations 1	UE	1				Numerical Mathematics I	VL	2	Introduction into Medical Technology and Systems	VL	2			
12							Differential Equations 1	HÜ	1				Numerical Mathematics I	UE	2	Introduction into Medical Technology and Systems	PS	2			
13																Introduction into Medical Technology and Systems	HÜ	1			
14																					
15	**Electrical Engineering I**			**Electrical Engineering II**			**Mechanics III (GES)**			**Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)**											
	Electrical Engineering I	VL	3	Electrical Engineering II	VL	3	Mechanics III	HÜ	1	Mechanics IV	VL	3									
16	Electrical Engineering I	UE	2	Electrical Engineering II	UE	2	Mechanics III	UE	2	Mechanics IV	UE	2	**Heat Transfer**			**MED II: Introduction to Physiology**					
17							Mechanics III	VL	3	Mechanics IV	HÜ	1	Heat Transfer	VL	3	Introduction to Physiology	VL	2			
18													Heat Transfer	HÜ	2						
19																**BIO I: Experimental Methods in Biomechanics**			**Bachelor Thesis**		
20																Experimental Methods in Biomechanics	VL	2			
21	**Mechanics I (GES)**			**Mechanics II (GES)**			**Computer Engineering**			**MED I: Introduction to Anatomy**			**Measurement Technology for Mechanical Engineers**								
	Mechanics I	VL	2	Mechanics II	VL	2	Computer Engineering	VL	3	Introduction to Anatomy	VL	2	Measurement Technology for Mechanical	VL	2						
22	Mechanics I	HÜ	3	Mechanics II	HÜ	2	Computer Engineering	UE	1												
23										**MED I: Introduction to Radiology and Radiation Therapy**											
24																					
25																					
26																					

				Introduction to Radiology and Radiation Therapy VL 2	Engineering Measurement Technology for Mechanical Engineering HÜ 1 Practical Course: Measurement and Control Systems PR 2	
27	**Programming in C** Programming in C VL 1 Programming in C PR 1	**Fundamentals of Mechanical Engineering (GES)** 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			
28						
29	**Physics for Engineers (GES)** Physics for Engineers VL 2 Physics for Engineers UE 1				**MED II: Introduction to Biochemistry and Molecular Biology** Introduction to Biochemistry and Molecular Biology VL 2	
30						
31					**BIO I: Implants and Fracture Healing** Implants and Fracture Healing VL 2	
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.