Course of Study General Engineering Science (English program) (Study Cohort w15)
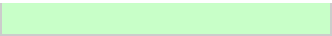
Sample course plan A Bachelor General Engineering Science (English program) (GESBS)
Specialisation Mechanical Engineering, Focus Biomechanics

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
1	**Chemistry (GES)**			**Physics for Engineers (GES) (part 2)**			**Technical Thermodynamics II**			**Mechanical Engineering: Design (part 2)**			**Introduction to Control Systems**			**Foundations of Management**		
2	Chemistry I	VL	2	Physics-Lab for ET/ AIW/ GES	PR	1	Technical Thermodynamics II	VL	2	Team Project Design Methodology	POL	2	Introduction to Control Systems	VL	2	Introduction to Management	VL	4
3	Chemistry II	VL	2	**Fundamentals of Mechanical Engineering Design**			Technical Thermodynamics II	HÜ	1	Mechanical Design Project II	TT	3	Introduction to Control Systems	UE	2	Project Entrepreneurship	POL	2
4	Chemistry I	HÜ	1				Technical Thermodynamics II	UE	1									
5	Chemistry II	HÜ	1	Fundamentals of Mechanical Engineering Design	VL	2				**Fundamentals of Materials Science (part 2)**								
6				Fundamentals of Mechanical Engineering Design	HÜ	2				Fundamentals of Materials Science II	VL	2						
7	**Linear Algebra**						**Computer Engineering**			**Signals and Systems**			**Measurement Technology for Mechanical and Process Engineers**			**BIO I: Implants and Testing (part 2)**		
8	Linear Algebra	VL	4				Computer Engineering	VL	3	Signals and Systems	VL	3				Experimental Methods in Biomechanics	VL	2
9	Linear Algebra	HÜ	2	**Technical Thermodynamics I**			Computer Engineering	UE	1	Signals and Systems	HÜ	1	Measurement Technology for Mechanical and Process Engineers	VL	2			
10	Linear Algebra	UE	2	Technical Thermodynamics I	VL	2							Measurement Technology for Mechanical and Process Engineers	HÜ	1	**MED II: Medical Basics II (part 2)**		
11				Technical Thermodynamics I	HÜ	1				**Fluid Dynamics**			Practical Course: Measurement and Control Systems	PR	2	Introduction to Physiology	VL	2
12				Technical Thermodynamics I	UE	1				Fluid Mechanics	VL	3						
13							**Mathematics III**			Fluid Mechanics	HÜ	1	**BIO I: Implants and Testing (part 1)**			**Bachelor Thesis**		
14							Analysis III	VL	2				Implants and Fracture Healing	VL	2			
15	**Electrical Engineering I**			**Mathematical Analysis**			Analysis III	UE	1									
16	Electrical Engineering I	VL	3	Mathematical Analysis	VL	4	Analysis III	HÜ	1									
17	Electrical Engineering I	UE	2	Mathematical Analysis	HÜ	2	Differential Equations 1	VL	2				**MED II: Medical Basics II (part 1)**					
18				Mathematical Analysis	UE	2	Differential Equations 1	UE	1	**Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)**			Introduction to Biochemistry and Molecular Biology	VL	2			
19							Differential Equations 1	HÜ	1	Mechanics IV	VL	3						
20										Mechanics IV	UE	2	**Numerical Mathematics I**					
21	**Mechanics I (GES)**						**Mechanics III (GES)**			Mechanics IV	HÜ	1	Numerical Mathematics I	VL	2			
22	Mechanics I	VL	2				Mechanics III	HÜ	1				Numerical Mathematics I	UE	2			
23	Mechanics I	HÜ	3	**Electrical Engineering II**			Mechanics III	UE	2									
24				Electrical Engineering II	VL	3	Mechanics III	VL	3	**MED I: Medical Basics I**								
25				Electrical Engineering II	UE	2				Introduction to Radiology and Radiation Therapy	VL	2	**Heat Transfer**					
26													Heat Transfer	VL	3			
27	**Physics for Engineers (GES) (part 1)**						**Mechanical Engineering: Design (part 1)**			Introduction to Anatomy	VL	2	Heat Transfer	HÜ	1			
28	Physics for Engineers	VL	2				Embodiment Design and 3D-CAD	VL	2									
29	Physics for Engineers	UE	1	**Mechanics II (GES)**			Mechanical Design Project I	TT	3									
30				Mechanics II	VL	2	**Fundamentals of Materials Science (part 1)**			**Electrical Machines**								
31				Mechanics II	HÜ	2	Fundamentals of Materials Science I	VL	2	Electrical Machines	VL	3						
32							Physical and Chemical Basics of Materials Science	VL	2	Electrical Machines	HÜ	2						
33																		
34																		

35	Programming in C		
36	Programming in C	VL	1
	Programming in C	PR	1

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.