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

Legend:

Core Qualification Compulsory	Specialisation Compulsory	Focus Compulsory	Thesis Compulsory
Core Qualification Elective Compulsory	Specialisation Elective Compulsory	Focus Elective Compulsory	Interdisciplinary complement

Sample course plan - Bachelor General Engineering Science (German program, 7 semester) (AIWBS(7))
Specialisation Biomedical Engineering

LP	Semester 1	FormHrs/wk	Semester 2	FormHrs/wk	Semester 3	FormHrs/wk	Semester 4	FormHrs/wk	Semester 5	FormHrs/wk	Semester 6	FormHrs/wk	Semester 7	FormHrs/wk
1	**Chemistry**		**Electrical Engineering II: Alternating Current Networks and Basic Devices**		**Technical Thermodynamics II**		**Fundamentals of Materials Science (part 2)**		**Introduction to Control Systems**		**Foundations of Management**		**Advanced Internship AIW/ ES**	
2	Chemistry I	VL 2	Electrical Engineering II: Alternating Current Networks and Basic Devices	VL 3	Technical Thermodynamics II	VL 2	Fundamentals of Materials Science II	VL 2	Introduction to Control Systems	VL 2	Introduction to Management	VL 3	Advanced Internship AIW/ ES: Preparation	SE 1
3	Chemistry II	VL 2	Electrical Engineering II: Alternating Current Networks and Basic Devices	GÜ 2	Technical Thermodynamics II	HÜ 1	**Signals and Systems**		Introduction to Control Systems	GÜ 2	Management Tutorial	GÜ 2	Advanced Intenship AIW/ ES: Internship-accompanying Seminar	SE 1
4	Chemistry I	HÜ 1			Technical Thermodynamics II	GÜ 1	Signals and Systems	VL 3						
5	Chemistry II	HÜ 1					Signals and Systems	GÜ 2						
6														
7	**Electrical Engineering I: Direct Current Networks and Electromagnetic Fields**		**Fundamentals of Mechanical Engineering Design**		**Mathematics III**				**Mechanical Engineering: Design (part 1)**		**Introduction into Medical Technology and Systems**			
8	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	VL 3	Fundamentals of Mechanical Engineering Design	VL 2	Analysis III	VL 2			Embodiment Design and 3D-CAD	VL 2	Introduction into Medical Technology and Systems	VL 2		
9					Analysis III	GÜ 1			Mechanical Design Project I	PBL 3				
10	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	GÜ 2	Fundamentals of Mechanical Engineering Design	HÜ 2	Analysis III	HÜ 1	**Fluid Dynamics**				Introduction into Medical Technology and Systems	PS 2		
11					Differential Equations 1	VL 2	Fluid Mechanics	VL 3	**Numerical Mathematics I**		Introduction into Medical Technology and Systems	HÜ 1		
12					Differential Equations 1	GÜ 1	Fluid Mechanics	HÜ 2	Numerical Mathematics I	VL 2				
13	**Mathematics I**		**Technical Thermodynamics I**		Differential Equations 1	HÜ 1			Numerical Mathematics I	GÜ 2	**MED II: Introduction to Physiology**			
14	Linear Algebra I	VL 2	Technical Thermodynamics I	VL 2							Introduction to Physiology	VL 2		
15	Linear Algebra I	GÜ 1	Technical Thermodynamics I	HÜ 1	**Mechanics III (Hydrostatics, Kinematics, Kinetics I)**		**Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)**							
16	Linear Algebra I	HÜ 1	Technical Thermodynamics I	GÜ 1	Mechanics III	VL 3	Mechanics IV	VL 3	**Heat Transfer**		**BIO I: Experimental Methods in Biomechanics**			
17	Analysis I	VL 2			Mechanics III	GÜ 2	Mechanics IV	GÜ 2	Heat Transfer	VL 3	Experimental Methods in Biomechanics	VL 2		
18	Analysis I	GÜ 1			Mechanics III	HÜ 1	Mechanics IV	HÜ 1	Heat Transfer	HÜ 2				
19	Analysis I	HÜ 1	**Mechanics II: Mechanics of Materials**								**Mechanical Engineering: Design (part 2)**		**Bachelor Thesis**	
20			Mechanics II	VL 2							Team Project Design Methodology	PBL 2		
21	**Mechanics I (Statics)**		Mechanics II	GÜ 2	**Computer Engineering**		**MED I: Introduction to Anatomy**				Mechanical Design Project II	PBL 3		
22	Mechanics I	VL 2	Mechanics II	HÜ 2	Computer Engineering	VL 3	Introduction to Anatomy	VL 2	**Measurement Technology for Mechanical Engineers**					
23	Mechanics I	GÜ 2			Computer Engineering	GÜ 1			Measurement Technology for Mechanical Engineering	VL 2				
24	Mechanics I	HÜ 1	**Mathematics II**				**MED I: Introduction to Radiology and Radiation Therapy**		Measurement Technology for Mechanical Engineering	HÜ 1				
25			Linear Algebra II	VL 2			Introduction to Radiology and Radiation Therapy	VL 2	Practical Course: Measurement and Control Systems	PR 2				
26			Linear Algebra II	GÜ 1										
27	**Programming in C**		Linear Algebra II	HÜ 1	**Fundamentals of Materials Science (part 1)**				**MED II: Introduction to Biochemistry and Molecular Biology**					
28	Programming in C	VL 1	Analysis II	VL 2	Fundamentals of Materials Science I	VL 2			Introduction to Biochemistry and Molecular Biology	VL 2				
29	Programming in C	PR 1	Analysis II	HÜ 1	Physical and Chemical Basics of Materials Science	VL 2			**BIO I: Implants and Fracture Healing**					
30	**Physics for Engineers (AIW)**		Analysis II	GÜ 1					Implants and Fracture Healing	VL 2				
31	Physics for Engineers	VL 2												
32	Physics for Engineers	GÜ 1												
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.