Course of Study General Engineering Science (German program) (Study Cohort w15)

Sample course plan C Bachelor General Engineering Science (German program) (AIWBS)
Specialisation Mechanical Engineering, Focus Product Development and Production

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/wk	Semester 2	FormHrs/wk	Semester 3	FormHrs/wk	Semester 4	FormHrs/wk	Semester 5	FormHrs/wk	Semester 6	FormHrs/wk
1	**Physics for Engineers (part 1)**		**Electrical Engineering II: Alternating Current Networks and Basic Devices**		**Technical Thermodynamics II**		**Mechanical Engineering: Design (part 2)**		**Introduction to Control Systems**		**Foundations of Management**	
2	Physics for Engineers	VL 2	Electrical Engineering II: Alternating Current Networks and Basic Devices	VL 3	Technical Thermodynamics II	VL 2	Team Project Design Methodology	POL 2	Introduction to Control Systems	VL 2	Introduction to Management	VL 4
3	Physics for Engineers	UE 1			Technical Thermodynamics II	HÜ 1	Mechanical Design Project II	TT 3	Introduction to Control Systems	UE 2	Project Entrepreneurship	POL 2
4			Electrical Engineering II: Alternating Current Networks and Basic Devices	UE 2	Technical Thermodynamics II	UE 1						
5	**Chemistry**						**Fundamentals of Materials Science (part 2)**					
6	Chemistry I	VL 2					Fundamentals of Materials Science II	VL 2				
7	Chemistry II	VL 2	**Fundamentals of Mechanical Engineering Design**		**Computer Engineering**		**Advanced Mechanical Engineering Design (part 2)**		**Measurement Technology for Mechanical and Process Engineers**		**Integrated Product Development and Lightweight Design**	
8	Chemistry I	HÜ 1	Fundamentals of Mechanical Engineering Design	VL 2	Computer Engineering	VL 3	Advanced Mechanical Engineering Design II	VL 2	Measurement Technology for Mechanical and Process Engineers	VL 2	Integrated Product Development I	VL 2
	Chemistry II	HÜ 1	Fundamentals of Mechanical Engineering Design	HÜ 2	Computer Engineering	UE 1	Advanced Mechanical Engineering Design II	HÜ 2	Measurement Technology for Mechanical and Process Engineers	HÜ 1	Development of Lightweight Design Products	VL 2
9							**Signals and Systems**		Practical Course: Measurement and Control Systems	PR 2	CAE-Team Project	POL 2
10							Signals and Systems	VL 3				
11	**Electrical Engineering I: Direct Current Networks and Electromagnetic Fields**						Signals and Systems	HÜ 1				
12	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	VL 3										
13			**Technical Thermodynamics I**		**Mathematics III**				**Advanced Mechanical Design Project**		**Bachelor Thesis**	
14	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	UE 2	Technical Thermodynamics I	VL 2	Analysis III	VL 2			Advanced Mechanical Design Project	TT 4		
15			Technical Thermodynamics I	HÜ 1	Analysis III	UE 1						
16			Technical Thermodynamics I	UE 1	Analysis III	HÜ 1						
17	**Mathematics I**				Differential Equations 1	VL 2	**Fluid Dynamics**					
18	Linear Algebra I	VL 2			Differential Equations 1	UE 1	Fluid Mechanics	VL 3				
19	Linear Algebra I	UE 1	**Mechanics II: Mechanics of Materials**		Differential Equations 1	HÜ 1	Fluid Mechanics	HÜ 1	**Production Technology**			
20	Linear Algebra I	HÜ 1	Mechanics II	VL 2					Forming and Cutting Technology	VL 2		
21	Analysis I	VL 2	Mechanics II	UE 2	**Mechanics III (Hydrostatics, Kinematics, Kinetics I)**		**Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)**		Forming and Cutting Technology	HÜ 1		
22	Analysis I	UE 1	Mechanics II	HÜ 2	Mechanics III	VL 3	Mechanics IV	VL 3	Fundamentals of Machine Tools	VL 3		
23	Analysis I	HÜ 1			Mechanics III	UE 2	Mechanics IV	UE 2				
24					Mechanics III	HÜ 1	Mechanics IV	HÜ 1				
25	**Mechanics I (Statics)**		**Mathematics II**						**Material Science Laboratory**			
26	Mechanics I	VL 2	Linear Algebra II	VL 2					Companion Lecture for Materials Science Laboratory	VL 2		
27	Mechanics I	UE 2	Linear Algebra II	UE 1	**Mechanical Engineering: Design (part 1)**		**Advanced Materials**		Material Science Laboratory	PR 4		
28	Mechanics I	HÜ 1	Linear Algebra II	HÜ 1	Embodiment Design and 3D-CAD	VL 2	Advanced Materials Characterization	VL 2				
29			Analysis II	VL 2	Mechanical Design Project I	TT 3	Advanced Materials Design	VL 2				
30			Analysis II	HÜ 1			Advanced Materials Design	HÜ 2				
31			Analysis II	UE 1	**Fundamentals of Materials Science (part 1)**							
32					Fundamentals of Materials Science I	VL 2						
33			**Programming in C**		Physical and Chemical Basics of Materials Science	VL 2						

34		Programming in C	VL	1	**Advanced Mechanical Engineering Design (part 1)**		
		Programming in C	PR	1			
35		**Physics for Engineers (part 2)**			Advanced Mechanical Engineering Design I	VL	2
36		Physics-Lab for ET/ AIW/ GES	PR	1	Advanced Mechanical Engineering Design I	HÜ	2

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.