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

Sample course plan A Bachelor General Engineering Science (German program, 7 semester) (AIWBS(7))
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	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**			**Electrical Engineering II: Alternating Current Networks and Basic Devices**			**Technical Thermodynamics II**			**Mechanical Engineering: Design (part 2)**			**Computer Engineering**			**Foundations of Management**			**Advanced Internship GES**		
2	Chemistry I	VL	2	Electrical Engineering II: Alternating Current Networks and Basic Devices	VL	3	Technical Thermodynamics II	VL	2	Team Project Design Methodology	PBL	2	Computer Engineering	VL	3	Introduction to Management	VL	3			
3	Chemistry II	VL	2				Technical Thermodynamics II	HÜ	1	Mechanical Design Project II	TT	3	Computer Engineering	UE	1	Management Tutorial	HÜ	2			
	Chemistry I	HÜ	1																		
	Chemistry II	HÜ	1																		
4							Technical Thermodynamics II	UE	1	**Fundamentals of Materials Science (part 2)**											
5				Electrical Engineering II: Alternating Current Networks and Basic Devices	UE	2				Fundamentals of Materials Science II	VL	2									
6										**Advanced Mechanical Engineering Design (part 2)**											
7	**Electrical Engineering I: Direct Current Networks and Electromagnetic Fields**			**Fundamentals of Mechanical Engineering Design**			**Mathematics III**			Advanced Mechanical Engineering Design II	VL	2	**Introduction to Control Systems**			**Integrated Product Development and Lightweight Design**					
8	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	VL	3	Fundamentals of Mechanical Engineering Design	VL	2	Analysis III	VL	2	Advanced Mechanical Engineering Design II	HÜ	2	Introduction to Control Systems	VL	2	Integrated Product Development I	VL	2			
9				Fundamentals of Mechanical Engineering Design	HÜ	2	Analysis III	UE	1				Introduction to Control Systems	UE	2	Development of Lightweight Design Products	VL	2			
10							Analysis III	HÜ	1	**Production Engineering (part 2)**											
11	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	UE	2				Differential Equations 1	VL	2	Production Engineering II	VL	2				CAE-Team Project	PBL	2			
12							Differential Equations 1	UE	1	Production Engineering II	HÜ	1									
13	**Mathematics I**			**Technical Thermodynamics I**			Differential Equations 1	HÜ	1	**Fluid Dynamics**			**Measurement Technology for Mechanical and Process Engineers**			**Enhanced Fundamentals of Materials Science**					
14	Linear Algebra I	VL	2	Technical Thermodynamics I	VL	2				Fluid Mechanics	VL	3	Measurement Technology for Mechanical and Process Engineers	VL	2	Enhanced Fundamentals: Metals	VL	2			
15	Linear Algebra I	UE	1				**Mechanics III (Hydrostatics, Kinematics, Kinetics I)**			Fluid Mechanics	HÜ	2									
16	Linear Algebra I	HÜ	1	Technical Thermodynamics I	HÜ	1							Measurement Technology for Mechanical and Process Engineers	HÜ	1	Enhanced Fundamentals: Ceramics and Polymers	VL	2			
17	Analysis I	VL	2				Mechanics III	VL	3	**Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)**											
18	Analysis I	UE	1	Technical Thermodynamics I	UE	1	Mechanics III	UE	2	Mechanics IV	VL	3	Practical Course: Measurement and Control Systems	PR	2	Enhanced Fundamentals: Ceramics and Polymers	HÜ	1			
	Analysis I	HÜ	1				Mechanics III	HÜ	1	Mechanics IV	UE	2									
19				**Mechanics II: Mechanics of Materials**						Mechanics IV	HÜ	1	**Advanced Mechanical Design Project**			**Electrical Machines**			**Bachelor Thesis**		
20				Mechanics II	VL	2							Advanced Mechanical Design Project	PBL	4	Electrical Machines	VL	3			
21				Mechanics II	UE	2	**Mechanical Engineering:**														
22	**Mechanics I (Statics)**															Electrical Machines	HÜ	2			

23	Mechanics I VL 2 Mechanics I UE 2 Mechanics I HÜ 1	Mechanics II HÜ 2	**Design (part 1)** Embodiment Design and 3D-CAD VL 2 Mechanical Design Project I TT 3			
24			**Fundamentals of Materials Science (part 1)** Fundamentals of Materials Science I VL 2 Physical and Chemical Basics of Materials Science VL 2		**Production Technology** Forming and Cutting Technology VL 2 Forming and Cutting Technology HÜ 1 Fundamentals of Machine Tools VL 2 Fundamentals of Machine Tools HÜ 1	
25						
26		**Mathematics II** Linear Algebra II VL 2 Linear Algebra II UE 1 Linear Algebra II HÜ 1 Analysis II VL 2 Analysis II HÜ 1 Analysis II UE 1				
27	**Programming in C** Programming in C VL 1 Programming in C PR 1					
28			**Advanced Mechanical Engineering Design (part 1)** Advanced Mechanical Engineering Design I VL 2 Advanced Mechanical Engineering Design I HÜ 2			
29						
30	**Physics for Engineers (AIW)** Physics for Engineers VL 2 Physics for Engineers UE 1					
31			**Production Engineering (part 1)** Production Engineering I VL 2 Production Engineering I HÜ 1			
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.