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

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

34	Programming in C VL 1 Programming in C PR 1	**Advanced Mechanical Engineering Design (part 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.