

Course of Study General Engineering Science (German program, 7 semester) (Study Cohort w21)

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))

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													
2	Chemistry I+II VL 4	Electrical Engineering II: Alternating Current Networks and Basic Devices VL 3	Technical Thermodynamics II VL 2	Signals and Systems VL 3	Introduction to Control Systems VL 2	Foundations of Management VL 3	Advanced Internship AIW/ ES SE 1						
3	Chemistry I+II HÜ 2	Electrical Engineering II: Alternating Current Networks and Basic Devices VL 3	Technical Thermodynamics II HÜ 1	Signals and Systems GÜ 2	Introduction to Control Systems GÜ 2	Introduction to Management GÜ 2	Advanced Internship AIW/ ES: Preparation SE 1						
4		Electrical Engineering II: Alternating Current Networks and Basic Devices GÜ 2	Technical Thermodynamics II GÜ 1			Management Tutorial GÜ 2	Advanced Internship AIW/ ES: Internship-accompanying Seminar SE 1						
5													
6													
7	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields VL 3	Fundamentals of Mechanical Engineering Design VL 2	Mathematics III VL 2	Fluid Dynamics VL 3	Measurement Technology for Mechanical Engineers VL 2	Advanced Materials VL 2							
8	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields HÜ 2	Fundamentals of Mechanical Engineering Design HÜ 2	Analysis III GÜ 1	Fluid Mechanics HÜ 2	Measurement Technology for Mechanical Engineering VL 2	Advanced Materials Characterization VL 2							
9	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields GÜ 2	Fundamentals of Mechanical Engineering Design HÜ 2	Analysis III HÜ 1	Fluid Mechanics HÜ 2	Measurement Technology for Mechanical Engineering HÜ 1	Advanced Materials Design VL 2							
10			Differential Equations 1 VL 2		Measurement Technology for Mechanical Engineering HÜ 1	Advanced Materials Design HÜ 2							
11			Differential Equations 1 GÜ 1		Practical Course: Measurement and Control Systems PR 2								
12			Differential Equations 1 HÜ 1										
13	Mathematics I VL 2	Technical Thermodynamics I VL 2		Mechanics IV (Oscillations, Analytical Mechanics, Multibody Systems, Numerical Mechanics) VL 3	Numerical Mathematics I VL 2	Enhanced Fundamentals of Materials Science VL 2							
14	Linear Algebra I GÜ 1	Technical Thermodynamics I HÜ 1		Mechanics IV GÜ 2	Numerical Mathematics I GÜ 2	Enhanced Fundamentals: Metals VL 2							
15	Linear Algebra I HÜ 1	Technical Thermodynamics I GÜ 1	Mechanics III (Dynamics) VL 3	Mechanics IV HÜ 1		Enhanced Fundamentals: Ceramics and Polymers VL 2							
16	Analysis I VL 2		Mechanics III GÜ 2			Enhanced Fundamentals: Ceramics and Polymers HÜ 1							
17	Analysis I GÜ 1		Mechanics III HÜ 1										
18	Analysis I HÜ 1												
19		Mechanics II: Mechanics of Materials VL 2		Advanced Mechanical Engineering Design (part 2) VL 2	Structural Materials (part 1) VL 3	Computer Science for Engineers - Programming Concepts, Data Handling & Communication VL 3							
20		Mechanics II GÜ 2		Advanced Mechanical Engineering Design (part 1) HÜ 2	Welding Technology VL 3	Computer Science for Engineers - Programming Concepts, Data Handling & Communication GÜ 2							
21	Mechanics I (Statics) VL 2	Mechanics II HÜ 2	Advanced Mechanical Engineering Design (part 1) VL 2	Advanced Mechanical Engineering Design I HÜ 2		Computer Science for Engineers - Programming Concepts, Data Handling & Communication GÜ 2							
22	Mechanics I GÜ 2		Advanced Mechanical Engineering Design I HÜ 2	Mechanical Engineering: Design (part 2) PBL 2	Material Science Laboratory VL 2	Computer Science for Engineers - Programming Concepts, Data Handling & Communication GÜ 2							
23	Mechanics I HÜ 1		Mechanical Engineering: Design (part 1) PBL 3	Team Project Design Methodology PBL 2	Companion Lecture for Materials Science Laboratory PR 4	Computer Science for Engineers - Programming Concepts, Data Handling & Communication GÜ 2							
24				Mechanical Design Project II PBL 3	Material Science Laboratory PR 4								
25		Mathematics II VL 2	Embodiment Design and 3D-CAD VL 2										
26		Linear Algebra II GÜ 1	Mechanical Design Project I PBL 3	Fundamentals of Materials Science (part 2) VL 2		Structural Materials (part 2) VL 2							
27	Computer Science for Engineers - Introduction and Overview VL 3	Linear Algebra II HÜ 1		Fundamentals of Materials Science (part 1) VL 2		Fundamentals of Mechanical Properties of Materials VL 2							
28	Computer Science for Engineers - Introduction and Overview HÜ 1	Linear Algebra II GÜ 1		Fundamentals of Materials Science I VL 2									
29	Computer Science for Engineers - Introduction and Overview GÜ 2	Analysis II VL 2		Physical and Chemical Basics of Materials Science VL 2									
30		Analysis II HÜ 1											
31		Analysis II GÜ 1											
32													

Non-technical 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.

