

# 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 A Bachelor General Engineering Science (German program, 7 semester) (AIWBS(7))

Semester	Specialisation: Mechanical Engineering	Focus: Product Development and Production	Semester 4	Semester 5	Semester 6	Semester 7
	FormHrs/wk	FormHrs/wk	FormHrs/wk	FormHrs/wk	FormHrs/wk	FormHrs/wk
1	<b>Chemistry</b>	<b>Electrical Engineering II: Alternating Current Networks and Basic Devices</b>	<b>Technical Thermodynamics II</b>	<b>Mechanical Engineering: Design (part 2)</b>	<b>Introduction to Control Systems</b>	<b>Foundations of Management</b>
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	Introduction to Control Systems VL 2	Introduction to Management VL 3
3	Chemistry II VL 2	Current Networks and Basic Devices HÜ 1	Technical Thermodynamics II HÜ 1	Mechanical Design Project II PBL 3	Introduction to Control Systems GÜ 2	Management Tutorial GÜ 2
4	Chemistry I HÜ 1	Electrical Engineering II: Alternating Current Networks and Basic Devices GÜ 2	Technical Thermodynamics II GÜ 1	<b>Fundamentals of Materials Science (part 2)</b>		
5	Chemistry II HÜ 1			Fundamentals of Materials Science II VL 2		
6				<b>Advanced Mechanical Engineering Design (part 2)</b>		
7	<b>Electrical Engineering I: Direct Current Networks and Electromagnetic Fields</b>	<b>Fundamentals of Mechanical Engineering Design</b>	<b>Mathematics III</b>	Advanced Mechanical Engineering Design II VL 2	<b>Computer Engineering</b>	<b>Integrated Product Development and Lightweight Design</b>
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	Computer Engineering VL 3	Integrated Product Development I VL 2
9	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields GÜ 2	Fundamentals of Mechanical Engineering Design HÜ 2	Analysis III GÜ 1	Design II HÜ 2	Computer Engineering GÜ 1	Development of Lightweight Design Products VL 2
10			Analysis III HÜ 1	<b>Production Engineering (part 2)</b>		CAE-Team Project PBL 2
11			Differential Equations 1 VL 2	Production Engineering II VL 2		
12			Differential Equations 1 GÜ 1	Production Engineering II HÜ 1		
13	<b>Mathematics I</b>	<b>Technical Thermodynamics I</b>	Differential Equations 1 HÜ 1	<b>Fluid Dynamics</b>	<b>Measurement Technology for Mechanical Engineers</b>	<b>Enhanced Fundamentals of Materials Science</b>
14	Linear Algebra I VL 2	Technical Thermodynamics I VL 2		Fluid Mechanics VL 3	Measurement Technology for Mechanical Engineering VL 2	Enhanced Fundamentals: Metals VL 2
15	Linear Algebra I GÜ 1	Technical Thermodynamics I HÜ 1	<b>Mechanics III (Hydrostatics, Kinematics, Kinetics I)</b>	Fluid Mechanics HÜ 2	Measurement Technology for Mechanical Engineering HÜ 1	Enhanced Fundamentals: Ceramics and Polymers VL 2
16	Linear Algebra I HÜ 1	Technical Thermodynamics I GÜ 1	Mechanics III VL 3	<b>Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems)</b>	Practical Course: Measurement and Control Systems PR 2	Enhanced Fundamentals: Ceramics and Polymers HÜ 1
17	Analysis I VL 2		Mechanics III GÜ 2	Mechanics IV VL 3		
18	Analysis I GÜ 1	<b>Mechanics II: Mechanics of Materials</b>	Mechanics III HÜ 1	Mechanics IV GÜ 2	<b>Advanced Mechanical Design Project</b>	<b>Electrical Machines and Actuators</b>
19	Analysis I HÜ 1	Mechanics II VL 2		Mechanics IV HÜ 1	Advanced Mechanical Design Project PBL 4	Electrical Machines and Actuators VL 3
20		Mechanics II GÜ 2	<b>Mechanical Engineering: Design (part 1)</b>			Electrical Machines and Actuators HÜ 2
21	<b>Mechanics I (Statics)</b>	Mechanics II HÜ 2	Embodiment Design and 3D-CAD VL 2		<b>Production Technology</b>	
22	Mechanics I VL 2		Mechanical Design Project I PBL 3		Forming and Cutting Technology VL 2	
23	Mechanics I GÜ 2	<b>Mathematics II</b>			Forming and Cutting Technology HÜ 1	
24	Mechanics I HÜ 1	Linear Algebra II VL 2	<b>Fundamentals of Materials Science (part 1)</b>		Fundamentals of Machine Tools VL 2	
25		Linear Algebra II GÜ 1	Fundamentals of Materials Science I VL 2		Fundamentals of Machine Tools HÜ 1	
26		Linear Algebra II HÜ 1	Physical and Chemical Basics of Materials Science VL 2			
27	<b>Programming in C</b>	Linear Algebra II GÜ 1				
28	Programming in C VL 1	Linear Algebra II HÜ 1	<b>Advanced Mechanical Engineering Design (part 1)</b>			
29	Programming in C PR 1	Analysis II VL 2	Advanced Mechanical Engineering Design I VL 2			
30	<b>Physics for Engineers (AIW)</b>	Analysis II HÜ 1	Advanced Mechanical Engineering Design I HÜ 2			
31	Physics for Engineers VL 2	Analysis II GÜ 1				
32	Physics for Engineers GÜ 1		<b>Production Engineering (part 1)</b>			
33			Production Engineering I VL 2			
			Production Engineering I HÜ 1			

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.

