

# Course of Study Energy and Environmental Engineering (Study Cohort w20)

Legend:  
 Core Qualification Elective Compulsory  
 Specialisation Elective Compulsory  
 Focus Elective Compulsory  
 Interdisciplinary Complement

Sample course plan A Bachelor Energy and Environmental Engineering (EUTBS)

1	<b>Engineering Mechanics I</b> Engineering Mechanics I VL 3	<b>Engineering Mechanics II</b> Engineering Mechanics II VL 3	<b>Mechanical Engineering: Design (part 1)</b> Embodiment Design and 3D-CAD VL 2	<b>Fundamentals of Fluid Mechanics</b> Fundamentals of Fluid Mechanics VL 2	<b>Heat and Mass Transfer</b> Heat and Mass Transfer VL 2	<b>Environmental Technology (part 2)</b> Practical Exercise Environmental Technology PR 1
2	Engineering Mechanics I GÜ 2	Engineering Mechanics II GÜ 2	Mechanical Design Project I PBL 3	Fluid Mechanics for Process Engineering HÜ 2	Heat and Mass Transfer GÜ 1	<b>Renewables Energy Systems and Energy Economy</b>
3					Heat and Mass Transfer HÜ 1	Renewable Energy VL 2
4			<b>Basics of Electrical Engineering</b> Basics of Electrical Engineering VL 3			Energy Systems and Energy Industry VL 2
5			Basics of Electrical Engineering GÜ 2			Power Industry VL 1
6						Renewable Energy GÜ 1
7	<b>Mathematics I</b>	<b>Fundamentals of Mechanical Engineering Design</b>		<b>Electrical Machines and Actuators</b>	<b>Introduction to Control Systems</b>	
8	Linear Algebra I VL 2	Fundamentals of Mechanical Engineering Design VL 2		Electrical Machines and Actuators VL 3	Introduction to Control Systems VL 2	<b>Advanced Mechanical Engineering Design (part 2)</b>
9	Linear Algebra I GÜ 1	Fundamentals of Mechanical Engineering Design HÜ 2		Electrical Machines and Actuators HÜ 2	Introduction to Control Systems GÜ 2	Advanced Mechanical Engineering Design II VL 2
10	Linear Algebra I HÜ 1					Advanced Mechanical Engineering Design II HÜ 2
11	Analysis I VL 2		<b>Technical Thermodynamics II</b>			<b>Reciprocating Machinery (part 2)</b>
12	Analysis I GÜ 1		Technical Thermodynamics II VL 2			Internal Combustion Engines I VL 2
13	Analysis I HÜ 1		Technical Thermodynamics II HÜ 1			Internal Combustion Engines I HÜ 1
14		<b>Technical Thermodynamics I</b>		<b>Computer Science for Engineers - Programming Concepts, Data Handling &amp; Communication</b>	<b>Measurement Technology for Mechanical Engineers</b>	
15	<b>General and Inorganic Chemistry</b>	Technical Thermodynamics I VL 2		Computer Science for Engineers - Programming VL 3	Measurement Technology for Mechanical VL 2	
16	General and Inorganic Chemistry VL 3	Technical Thermodynamics I HÜ 1		Concepts, Data Handling & Communication	Engineering HÜ 1	<b>Bachelor Thesis</b>
17	Fundamentals in Inorganic Chemistry PR 3	Technical Thermodynamics I GÜ 1	<b>Foundations of Management</b>	Computer Science for Engineers - Programming GÜ 2	Measurement Technology for Mechanical Engineering HÜ 1	
18	Fundamentals in Inorganic Chemistry GÜ 1		Introduction to Management VL 3	Concepts, Data Handling & Communication	Practical Course: Measurement and Control Systems PR 2	
19			Management Tutorial GÜ 2			
20		<b>Mathematics II</b>		<b>Mechanical Engineering: Design (part 2)</b>	<b>Environmental Technology</b>	
21	<b>Introduction into Energy and Environmental Engineering</b>	Linear Algebra II VL 2		Team Project Design Methodology PBL 2	Environmental Assessment VL 2	
22	Introduction to Energy and Environmental Engineering PBL 4	Linear Algebra II GÜ 1	<b>Mathematics III</b>	Mechanical Design Project II PBL 3	Case studies project assessment GÜ 1	
23	Engineering HÜ 1	Linear Algebra II HÜ 1	Analysis III VL 2			<b>Advanced Mechanical Engineering Design (part 1)</b>
24	Physics-Lab for EUT PR 2	Analysis II VL 2	Analysis III GÜ 1	<b>Fundamentals of Materials Science (part 2)</b>	<b>Environmental Technology (part 1)</b>	Advanced Mechanical Engineering Design I VL 2
25		Analysis II HÜ 1	Analysis III HÜ 1	Fundamentals of Materials Science II VL 2	Environmental Technologie VL 2	Advanced Mechanical Engineering Design I HÜ 2
26		Analysis II GÜ 1	Differential Equations 1 VL 2			
27			Differential Equations 1 GÜ 1			
28		<b>Organic Chemistry</b>	Differential Equations 1 HÜ 1			<b>Mechanics III (Dynamics)</b>
29		Organic Chemistry VL 4				Engineering Mechanics III VL 3
30		Organic Chemistry PR 3				Engineering Mechanics III GÜ 2
31			<b>Fundamentals of Materials Science (part 1)</b>			Engineering Mechanics III HÜ 1
32			Fundamentals of Materials Science I VL 2			
33			Physical and Chemical Basics of Materials Science VL 2			<b>Reciprocating Machinery (part 1)</b>
34						Fundamentals of Reciprocating Engines and Turbomachinery - Part Reciprocating Engines VL 1

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.

