

# Course of Study Energy and Environmental Engineering (Study Cohort w15)

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

Specialisation Compulsory	Specialisation Compulsory	Focus Compulsory	Thesis Compulsory
Core qualification Compulsory	Specialisation Elective Compulsory	Focus Elective Compulsory	Interdisciplinary complement

LP	Semester 1	FormHrs/wk	Semester 2	FormHrs/wk	Semester 3	FormHrs/wk	Semester 4	FormHrs/wk	Semester 5	FormHrs/wk	Semester 6	FormHrs/wk
1	<b>Engineering Mechanics I</b>		<b>Engineering Mechanics II</b>		<b>Mechanical Engineering: Design (part 1)</b>		<b>Fundamentals of Fluid Mechanics</b>		<b>Heat and Mass Transfer</b>		<b>Thermal Separation Processes (part 2)</b>	
	Engineering Mechanics I	VL 3	Engineering Mechanics II	VL 3	Embodiment Design and 3D-CAD	VL 2	Fundamentals of Fluid Mechanics	VL 2	Heat and Mass Transfer	VL 2	Thermal Separation Processes	PR 1
	Engineering Mechanics I	UE 2	Engineering Mechanics II	UE 2	Mechanical Design Project I	TT 3	Fluid Mechanics for Process Engineering	HÜ 2	Heat and Mass Transfer	UE 1	<b>Environmental Technology (part 2)</b>	
2									Heat and Mass Transfer	HÜ 1	Practical Exercise	PR 1
											Environmental Technology	
3											<b>Renewables and Energy Systems</b>	
4											Renewable Energy	VL 2
5											Energy Systems and Energy Industry	VL 2
6												
7					<b>Basics of Electrical Engineering</b>							
8	<b>Mathematics I</b>		<b>Fundamentals of Mechanical Engineering Design</b>		Basics of Electrical Engineering	UE 2	<b>Electrical Machines</b>		<b>Thermal Separation Processes (part 1)</b>		Power Industry	VL 1
	Linear Algebra I	VL 2	Fundamentals of Mechanical Engineering Design	VL 2	Engineering		Electrical Machines	VL 3	Thermal Separation Processes	VL 2	Renewable Energy	UE 1
9	Linear Algebra I	UE 1					Electrical Machines	HÜ 2			<b>Particle Technology and Solids Process Engineering</b>	
10	Linear Algebra I	HÜ 1									Particle Technology I	VL 2
11	Analysis I	VL 2			<b>Technical Thermodynamics II</b>						Particle Technology I	UE 1
	Analysis I	UE 1			Technical Thermodynamics II	VL 2					Particle Technology I	PR 2
	Analysis I	HÜ 1			Technical Thermodynamics II	HÜ 1						
12												
13												
14			<b>Technical Thermodynamics I</b>		Technical Thermodynamics II	UE 1	<b>Foundations of Management</b>		<b>Gas and Steam Power Plants</b>			
15			Technical Thermodynamics I	VL 2			Introduction to Management	VL 3	Gas and Steam Power Plants	VL 3		
16	<b>General and Inorganic Chemistry</b>		Technical Thermodynamics I	HÜ 1			Project Entrepreneurship	PBL 2	Gas and Steam Power Plants	HÜ 2	<b>Environmental Technology</b>	
17	Fundamentals in Inorganic Chemistry	VL 4			<b>Mathematics III</b>						Environmental Assessment	VL 2
18	Fundamentals in Inorganic Chemistry	PR 3			Analysis III	VL 2					Environmental Assessment	UE 1
19					Analysis III	UE 1						
20					Analysis III	HÜ 1						
21			<b>Mathematics II</b>		Differential Equations 1	VL 2	<b>Informatics for Process Engineers</b>		<b>Introduction to Control Systems</b>		<b>Bachelor Thesis</b>	
22	<b>Introduction into Energy and Environmental Engineering</b>		Linear Algebra II	VL 2	Differential Equations 1	UE 1	Numeric and Matlab	PR 2	Introduction to Control Systems	VL 2		
23	Introduction to Energy and Environmental Engineering	PBL 4	Linear Algebra II	UE 1	Differential Equations 1	HÜ 1	Informatics for Process Engineers	VL 2	Introduction to Control Systems	UE 2		
24							Informatics for Process Engineers	UE 2				
25	Physics-Lab for VT/ BVT/ EUT	PR 2										
26					<b>Fundamentals of Materials Science (part 1)</b>		<b>Mechanical Engineering: Design (part 2)</b>		<b>Measurement Technology for Mechanical and Process Engineers</b>			
27			<b>Organic Chemistry</b>		Fundamentals of Materials Science I	VL 2	Team Project Design Methodology	PBL 2	Measurement Technology for Mechanical and Process Engineers	VL 2		
			Organic Chemistry	VL 4	Physical and Chemical Basics of Materials Science	VL 2	Mechanical Design Project II	TT 3	Measurement Technology for Mechanical and Process Engineers	HÜ 1		
28			Organic Chemistry	PR 3								
29							<b>Fundamentals of Materials Engineers</b>					

30					
31					
32					

**Science (part 2)**  
 Fundamentals of Materials VL 2  
 Science II

Practical Course: PR 2  
 Measurement and Control  
 Systems

**Environmental Technology (part 1)**  
 Environmental Technologie VL 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.