

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

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

Legend:

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

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	Separation Processes	PR 1
2	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>	
3											Practical Exercise Environmental Technology	PR 1
4					<b>Basics of Electrical Engineering</b>						<b>Renewables and Energy Systems</b>	
5					Basics of Electrical Engineering	VL 3					Renewable Energy	VL 2
6					Basics of Electrical Engineering	UE 2					Energy Systems and Energy Industry	VL 2
7	<b>Mathematics I</b>		<b>Fundamentals of Mechanical Engineering Design</b>				<b>Electrical Machines</b>		<b>Thermal Separation Processes (part 1)</b>			
8	Linear Algebra I	VL 2	Fundamentals of Mechanical Engineering Design	VL 2			Electrical Machines	VL 3	Thermal Separation Processes	VL 3		
9	Linear Algebra I	UE 1	Engineering Design	HÜ 1	<b>Technical Thermodynamics II</b>		Electrical Machines	HÜ 2	Thermal Separation Processes	UE 2	<b>Particle Technology and Solids Process Engineering</b>	
10	Analysis I	VL 2	Fundamentals of Mechanical Engineering Design	HÜ 2	Technical Thermodynamics II	VL 2			Thermal Separation Processes	HÜ 1	Particle Technology I	VL 2
11	Analysis I	UE 1			Technical Thermodynamics II	HÜ 1					Particle Technology I	UE 1
12	Analysis I	HÜ 1			Technical Thermodynamics II	UE 1			<b>Gas and Steam Power Plants</b>		Particle Technology I	PR 2
13			<b>Technical Thermodynamics I</b>				<b>Foundations of Management</b>		Gas and Steam Power Plants	VL 3		
14			Technical Thermodynamics I	VL 2			Introduction to Management	VL 3	Gas and Steam Power Plants	HÜ 2		
15	<b>General and Inorganic Chemistry</b>		Technical Thermodynamics I	HÜ 1	<b>Mathematics III</b>		Project Entrepreneurship	POL 2			<b>Environmental Technology</b>	
16	Fundamentals in Inorganic Chemistry	VL 4	Technical Thermodynamics I	UE 1	Analysis III	VL 2					Environmental Assessment	VL 2
17	Fundamentals in Inorganic Chemistry	PR 3			Analysis III	UE 1					Environmental Assessment	UE 1
18					Analysis III	HÜ 1						
19			<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>	
20			Linear Algebra II	VL 2	Differential Equations 1	UE 1	Numeric and Matlab	PR 2	Introduction to Control Systems	VL 2		
21	<b>Introduction into Energy and Environmental Engineering</b>		Linear Algebra II	UE 1	Differential Equations 1	HÜ 1	Informatics for Process Engineers	VL 2	Introduction to Control Systems	UE 2		
22	Introduction to Energy and Environmental Engineering	POL 4	Analysis II	VL 2			Informatics for Process Engineers	UE 2				
23	Environmental Engineering		Analysis II	HÜ 1	<b>Fundamentals of Materials Science (part 1)</b>				<b>Measurement Technology for Mechanical and Process Engineers</b>			
24	Physics-Lab for VT/ BVT/ EUT	PR 2	Analysis II	UE 1	Fundamentals of Materials Science I	VL 2	<b>Mechanical Engineering: Design (part 2)</b>		Measurement Technology for Mechanical and Process Engineers	VL 2		
25					Physical and Chemical Basics of Materials Science	VL 2	Team Project Design Methodology	POL 2	Measurement Technology for Mechanical and Process Engineers	HÜ 1		
26							Mechanical Design Project II	TT 3	Measurement Technology for Mechanical and Process Engineers			
27			<b>Organic Chemistry</b>						Practical Course: Measurement and Control Systems	PR 2		
28			Organic Chemistry	VL 4			<b>Fundamentals of Materials Science (part 2)</b>					
29			Organic Chemistry	PR 3			Fundamentals of Materials Science II	VL 2				
30									<b>Environmental Technology (part 1)</b>			
31									Environmental Technologie	VL 2		
32												

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.