Course of Study Energy and Environmental Engineering (Study Cohort w14)

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

Legend:

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

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