Course of Study Energy and Environmental Engineering (Study Cohort w17)

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

28				**Fundamentals of Materials Science (part 2)** Fundamentals of Materials Science II VL 2	for Mechanical and Process Engineers Practical Course: Measurement and Control Systems PR 2	
29						
30						
31					**Environmental Technology (part 1)** 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.