Course of Study Renewable Energies (Study Cohort w25)

Sample course plan C Master Renewable Energies (REMS) Dual study program

Specialisation Bioenergy Systems

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

LP				
1	**Electrical Power Systems II: Operation and Information Systems of Electrical Power Grids**	**Use of Solar Energy**	**Thermal Energy Systems**	**Master thesis (dual study program)**
2	Electrical Power Systems II: Operation and Information Systems of Electrical Power Grids VL 3	Solar Power Generation VL 2	Thermal Engergy Systems VL 3	
3		Energy Meteorology VL 1	Thermal Engergy Systems HÜ 1	
4	Electrical Power Systems II: Operation and Information Systems of Electrical Power Grids HÜ 2	Energy Meteorology GÜ 1		
5		Collector Technology VL 2		
6				
7	**Bioenergy**	**Modelling and Technical Design of Bio Refinery Processes**	**Practical module 3 (dual study program, Master's degree)**	
8	Biofuels Process Technology VL 1	CAPE in Energy Engineering PK 3	Practical term 3 0	
9	Biofuels Process Technology GÜ 1	Biorefineries - Technical Design and Optimization PBL 3		
10	Thermal Biomass Utilization VL 2			
11	World Market for Commodities from Agriculture and Forestry VL 1			
12	Thermal Biomass Utilization PR 1			
13	**Energy Projects - Development and Assessment**	**Practical module 2 (dual study program, Master's degree)**		
14	Development of Energy Projects VL 2	Practical term 2 0		
15	Economic Aspects of Energy Projects VL 1			
16	Aspects of Sustainability Management VL 1			
17	Renewable Energy Projects in Emerged Markets PS 2		**Examples in Solid Process Engineering**	
18			Fluidization Technology VL 2	
19	**Dimensioning and Assessment of Renewable Energy Systems (part 1)**		Practical Course Fluidization Technology and Drying Technology PR 1	
20	Electricity Generation from Renewable Sources of Energy SE 2		Exercises in Fluidization Technology and Drying Technology GÜ 1	
21	Environmental Technology and Energy Economics PBL 2		Drying Technology VL 2	
22				
23	**Practical module 1 (dual study program, Master's degree)**	**Sustainable energy from wind and water**	**Advanced Fuels**	
24	Practical term 1 0	Wind Turbine Plants VL 2	Carbon dioxide as an economic determinant in the mobility sector VL 1	
25		Wind Energy Use - Focus Offshore VL 1	Second generation biofuels and electricity based fuels VL 2	
26		Hydro Power Use VL 1	Sustainability aspects and regulatory framework VL 1	
27		Offshore Geotechnical Engineering VL 1	Mobility and climate protection GÜ 2	
28				
29		**Technologies for electric and hydrogen mobility**		
30		Fuel Cells, Batteries, and Gas Storage: New Materials for Energy Production and Storage VL 2		
31		Applied Fuel Cell Technology VL 2		
32		Electro mobility VL 2		
33	**Fluid Mechanics and Ocean Energy**			
34	Fluid Mechanics II VL 2	**Dimensioning and Assessment of Renewable Energy Systems (part 2)**		
35	Energy from the Ocean VL 2	Heat Provision from Renewable Sources of Energy SE 2		
36				
37		**Bioprocess and Biosystems Engineering**		
38		Bioreactor Design and Operation VL 2		
39		Biosystems Engineering VL 2		
40		Bioreactors and Biosystems Engineering PBL 1		
41				
	Business & Management (from catalogue) - 6LP			
	Linking theory and practice (dual study program, Master's degree) (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.