

Curriculum 2nd cycle - stationary

ENERGY AND ENVIRONMENTAL ENGINEERING

Power Engineering KIC

Energy Transition

Faculty

Field

Specialization

From the academic year 2019/2020

(summer intake)

COURSES - SEMESTER	sem summer						sem winter					3 sem					ECTS								
	TOTAL	Lectures	Exercises	Labs	Seminars	Projects	Lectures	Exercises	Labs	Seminars	Projects	Lectures	Exercises	Labs	Seminars	Projects	1	2	3	Σ					
NON TECHNICAL MODULE																									
Foreign language	60	0	60	0	0	0		2					2							2	2	4			
Humanistic course	30	30	0	0	0	0	2													3		3			
Project management	45	15	0	0	0	30				1					2						3	3			
Business planning	30	0	0	0	0	30									2						3	3			
Economic course	30	30	0	0	0	0					2										2	2			
BASIC MODULE																									
Heat and mass transport in modern energy technologies	45	30	15	0	0	0					2	1									5	5			
Applied mathematics in modeling of energy processes	60	30	0	30	0	0					2		2								4	4			
Mathematical and numerical modeling of energy systems	60	30	0	30	0	0	2		2											4		4			
SPECIALIZATION MODULE																									
Environmental impact evaluation in full life cycle	45	30	0	0	0	15	2				1										3	3			
New generation alternative fuels	30	15	0	0	0	15	1			1											2	2			
Gasification and pyrolysis	30	15	0	0	0	15	1			1											2	2			
Review of renewable and conventional energy technologies	45	15	0	0	0	30	1			2											3	3			
Modern boilers	45	30	0	0	0	15	2			1											4	4			
Challenge based project	60	0	0	0	0	60				4											5	5			
Elective courses	150	75	75	0	0	0	1	1			1	1			3	3					2	2	6	10	
Clean combustion technologies	60	30	0	15	0	15					2		1		1							5	5		
Energy transition planning and implementation	30	15	0	0	0	15	1			1											3	3			
Energy storage for sustainable energy systems	30	15	0	0	0	15					1				1							3	3		
Waste to energy	30	15	0	15	0	0					1		1									2	2		
Circular economy	15	15	0	0	0	0					1											1	1		
Design of energy systems	15	15	0	0	0	0								1									1	1	
Speciality seminar	30	0	0	0	30	0													2				3	3	
Internship (2 months) (only KIC students)																						8	8		
MSc thesis	0	0	0	0	0	0																	20	20	
Classes hours in a week	975	450	150	90	30	255	13	3	2	0	11	13	4	4	0	6	4	3	0	2	0				
Total of classes hours in a week							29					27					9								
Total of ECTS credits																						33	40	30	103
Exams							2					3													