



Subject card

Subject name and code	Markets of energy, PG_00055957						
Field of study	Power Engineering, Power Engineering, Power Engineering						
Date of commencement of studies	October 2021	Academic year of realisation of subject				2023/2024	
Education level	first-cycle studies	Subject group				Optional subject group Subject group related to scientific research in the field of study	
Mode of study	Full-time studies	Mode of delivery				at the university	
Year of study	3	Language of instruction				Polish	
Semester of study	5	ECTS credits				2.0	
Learning profile	general academic profile	Assessment form				assessment	
Conducting unit	Department of Electrical Power Engineering -> Faculty of Electrical and Control Engineering						
Name and surname of lecturer (lecturers)	Subject supervisor		prof. dr hab. inż. Waldemar Kamrat				
	Teachers						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	15.0	0.0	0.0	0.0	30
	E-learning hours included: 0.0						
Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	Number of study hours	30		2.0		18.0	50
Subject objectives	<p>The aim of the course is to present students with issues concerning the most important problems related to the creation and functioning of energy markets</p> <p>Energy markets - principles, essence, directions of development.</p> <p>Management of energy markets.</p> <p>Outlays and costs of energy markets development.</p> <p>Energy markets in terms of fuel base and energy demand</p>						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_W08] has basic knowledge in the field of intellectual property protection and patent law, knows and understands the basic processes of energy production and use, knows and understands the principles of modern heating and power systems		The student knows and understands the basic processes of energy production and use, the principles of operation of modern heating and power systems		[SW1] Assessment of factual knowledge [SW3] Assessment of knowledge contained in written work and projects		
	[K6_W07] knows the basics of economic calculus in the energy sector; knows the legal, organizational and economic principles of the functioning of energy markets, knows the basic principles of management and running a business		The student is able to present the principles of operation of energy markets		[SW3] Assessment of knowledge contained in written work and projects [SW1] Assessment of factual knowledge		

Subject contents	<p>Energy markets - principles, essence, directions of development.</p> <p>Management of energy markets.</p> <p>Outlays and costs of energy markets development.</p> <p>Energy markets in terms of fuel base and energy demand</p>		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
Recommended reading	Basic literature	<p>1. Energy Markets edit. Wł. Mielczarski.</p> <p>2. Energy economics edit. W. Kamrat .PWN ,2022</p>	
	Supplementary literature	<p>1. Selected problems of decision making modelling in power engineering.</p> <p>SETA , Elsevier , 2021</p>	
	eResources addresses		
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		