



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		dr inż. Wiktoria Stahl				
			dr inż. Izabela Prażuch				
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	Energy markets - principles, essence, directions of development.		
	Management of energy markets.		
	Outlays and costs of energy markets development.		
	Energy markets in terms of fuel base and energy demand		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
		60.0%	100.0%
Recommended reading	Basic literature	1.Energy Markets edit. Wł.Mielczarski. 2.Energy economics edit. W. Kamrat .PWN ,2022	
	Supplementary literature	1.Selected problems of decision making modelling in power engineering. SETA , Elsevier , 2021	
	eResources addresses	Adresy na platformie eNauczanie: RYNEK ENERGII [2023/24] - Moodle ID: 31953 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=31953	
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		