

Subject card

Subject name and code	Energy transition and climate change - exercises, PG_00170005						
Field of study	Economics						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2026/2027		
Education level	Bachelor's studies		Subject group		Obligatory subject group in the field of study Optional subject group		
Mode of study	full-time studies		Mode of delivery		at the university		
Year of study	2		Language of instruction		Polish Polish		
Semester of study	4		ECTS credits		1.0		
Learning profile	academic		Assessment form		credit		
Conducting unit							
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Marcin Wolek				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	15.0	0.0	0.0	0.0	15
	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	15		5.0		5.0	25
Subject objectives	Familiarizing the student (through the analysis of a specific case study) with the response of a company in the fuel and energy sector to climate change. The aim of the course is to outline the company's transformation path in response to climate change and to shifts in the political, legal, and economic environment.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[EKONL3_K05] correctly identifies, diagnoses and resolves professional dilemmas and different options for solutions	By drawing on interdisciplinary knowledge, the student is able to assess the impact of different energy sources, including renewables, on energy policy and the environment.	[SK1] oral statement/conversation/discussion [SK2] presentation/project/paper/report
	[EKONL3_U02] is able to use the knowledge of theory and data to analyse concrete economic and social processes and phenomena and to analyse these phenomena using methods developed in economics, finance and management sciences	The student is able to properly assess and select an appropriate method for analyzing a specific problem related to energy transition and climate change in Poland and worldwide.	[SU1] oral statement/conversation/discussion [SU2] presentation/project/paper/report [SU8] observation of student's independent or team work
	[EKONL3_W03] has advanced knowledge of the relations between economic agents and social organisations operating in the national, international and intercultural arenas	The student has knowledge of the fundamental issues related to the energy transition and climate change in Poland and worldwide.	[SW1] oral statement/conversation/discussion [SW2] presentation/project/paper/report
	[EKONL3_K01] recognises the importance of economic knowledge in identifying and solving economic problems and of consulting experts when difficulties in solving them independently	The student recognizes knowledge of economics as a starting point for the analysis and evaluation of political decisions concerning the Green Deal and energy security.	[SK1] oral statement/conversation/discussion [SK2] presentation/project/paper/report [SK8] observation of student's independent or team work
	[EKONL3_U10] has the ability to prepare oral presentations, in Polish and in a foreign language, on economic and social issues, using specialist terminology, theoretical approaches, principles of collecting various sources of data, their description and interpretation, and making inferences from scientific literature, and is able to take an active part in a debate	The student is able to prepare an oral presentation and a slide presentation on the economic changes in the energy sector implied by climate change.	[SU1] oral statement/conversation/discussion [SU2] presentation/project/paper/report [SU5] implementation of a problem task [SU8] observation of student's independent or team work
	[EKONL3_W04] knows the types of economic and social ties and the regularities governing them	The student is able to identify the key actors in the energy sector at both the national and global level, as well as indicate the relationships between them.	[SW1] oral statement/conversation/discussion [SW2] presentation/project/paper/report
	[EKONL3_K02] is aware of the level of knowledge in the field of economics and understands the need to deepen and update this knowledge throughout life	The student understands the complexity of issues related to the energy transition and climate change, as well as the dynamic progress in technology and knowledge. Consequently, the student is aware of the need to continuously verify and update their knowledge in this field throughout life.	[SK1] oral statement/conversation/discussion [SK2] presentation/project/paper/report
Subject contents	Project Analysis of the Transformation Pathways of Selected Fuel and Energy Sector Companies Listed on Stock Exchanges in Response to Climate Change The project will be carried out in the following stages: - Preliminary selection of companies from the fuel and energy sector. - Identification and evaluation of source materials. - Defining theoretical transformation pathways for the companies. - Developing a set of indicators to determine the companies transformation pathways. - Determining the transformation pathway of a specific company. - Comparative analysis of individual case studies and formulation of conclusions. Any questions or concerns regarding the discussed issues may be addressed with the Instructor during the consultation session.		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Attendance rate	75.0%	25.0%
	The research report - project	51.0%	75.0%

Recommended reading	Basic literature	K. Halttunen, R. Slade, I. Staffell: Diversify or die: Strategy options for oil majors in the sustainable energy transition. Energy Research & Social Science 2023, Volume 104, Annual and environmental reports of the companies selected for analysis.
	Supplementary literature	Five big technology transformation ideas for oil and gas CEOs, November 2022, link: https://www.mckinsey.com/capabilities/operations/our-insights/five-big-technology-transformation-ideas-for-oil-and-gas-ceos The Palgrave Handbook of International Energy Economics. Red. M. Hafner, G. Luciani. Palgrave 2022.
	eResources addresses	
Example issues/ example questions/ tasks being completed	Indicator-based analysis of the transformation pathway of a selected company from the fuel and energy sector, based on annual and environmental reports.	
Work placement	Not applicable	

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