

Subject card

Subject name and code	Energy Security and the Green Transition , PG_00179736						
Field of study	Finance and Accounting, Informatics and Econometrics, Management, Management of Healthcare Institutions, Sport Management						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2025/2026		
Education level	Bachelor's studies		Subject group		Optional subject group		
Mode of study	full-time studies		Mode of delivery		at the university		
Year of study	1		Language of instruction		English english		
Semester of study	2		ECTS credits		2.0		
Learning profile	academic		Assessment form		credit		
Conducting unit	Department of Investment and Real Estate -> Faculty of Management -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Aleksandra Koszarek-Cyra				
	Teachers		dr inż. Aleksandra Koszarek-Cyra				
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	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		1.0		34.0	50
Subject objectives	The aim of the course is to provide students with a comprehensive understanding of energy security in the context of the global energy transition and the shift toward a low-carbon economy .						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[ZARZL3_W01] The student has advanced knowledge and understanding of the nature and evolution of management, quality sciences, economics, and finance theories, along with their place in the social sciences system — particularly their relevance to business decision-making.	The student has an advanced knowledge and understanding of management, economic, and financial theories in the context of energy security and the green transition and can apply them in business decision-making processes.	[SW4] test/exam - oral or written
	[FiRL3_W01] The student has advanced knowledge and understanding of the nature and evolution of management, quality, economics, and finance theories and their place in the social sciences system, particularly from the perspectives of finance and accounting.	The student has an advanced knowledge and understanding of economic and financial theories related to energy security and the green transition and is able to explain their place within the system of social sciences – particularly from the perspective of finance and accounting.	[SW4] test/exam - oral or written
	[IiEL3_W01] The student knows and understands to an advanced degree the nature and evolution of theories in management, quality sciences, economics, and finance, along with their place in the social sciences system —especially in applying informatics or statistics tools.	The student has an advanced knowledge and understanding of economic and financial theories related to energy security and the green transition and can apply information or statistical methods and tools to their analysis.	[SW4] test/exam - oral or written
	[ZSSML3_W01] The student as advanced knowledge in the discipline of management and quality sciences and understands its interrelationship with other social sciences.	The student has advanced knowledge in the field of management and quality sciences in the context of the challenges of the green transition and understands the interrelations of this discipline with other social sciences.	[SW4] test/exam - oral or written
	[ZISZL3_W01] The student has advanced knowledge of the discipline of management and quality sciences and understands its interrelationships with other social sciences.	The student has advanced knowledge in the field of management and quality sciences with regard to energy security strategies and understands the relationships of this discipline with other social sciences.	[SW4] test/exam - oral or written
Subject contents	1. Introduction to Energy Security 2. The Global Context of the Energy Transition 3. Technological Innovation and Infrastructure 4. Cybersecurity and System Resilience 5. Social and Ethical Dimensions of the Transition		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	test	51.0%	100.0%
Recommended reading	Basic literature	1. International Energy Agency (IEA). (2023). <i>Electricity Grids and Secure Energy Transitions</i>. Paris: OECD Publishing. 2. International Renewable Energy Agency (IRENA). (2023). World Energy Transitions Outlook 2023: 1.5°C Pathway. Abu Dhabi: IRENA.	
	Supplementary literature	1. European Commission. (2023). REPowerEU Plan: The Path to Energy Security and Green Transition. Brussels: European Commission. 2. United Nations Economic Commission for Europe (UNECE). (2021). Pathways to Sustainable Energy: Accelerating Energy Transition in the UNECE Region. Geneva: United Nations.	

	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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