University of Gdańsk

Subject card

Subject name and code	Transportation in the value chain, PG_00199024						
Field of study	Economics						
Date of commencement of studies	October 2026		Academic year of realisation of subject		2028/2029		
Education level	Bachelor's studies		Subject group		Obligatory subject group in the field of study 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	6		ECTS credits		3.0		
Learning profile	academic		Assessment form		credit		
Conducting unit							
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Barbara Pawłowska, prof. UG				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	30.0	0.0	10.0	0.0	40
	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	40		0.0		35.0	75
Subject objectives	The goal of the course is to familiarise students with the role of transport across various sectors of the economy, focusing on its impact on process efficiency and the creation of added value. Students learn to identify and implement transport solutions that enhance the value of products and services at different stages of the value chain, in both industrial and service sectors						

Learning outcomes

Course outcome	Subject outcome	Method of verification
[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 apply theoretical knowledge and independently gather data to analyse specific economic and social processes and phenomena, particularly those related to the role of transport in the value chain.	[SU5] implementation of a problem task
[EKONL3_W03] knows the relations between economic agents and social organisations operating in the national, international and intercultural arenas	The student possesses advanced knowledge of the relationships between economic entities and social organisations operating in national, international, and intercultural environments, in the context of the role of transport in value creation and value chain efficiency.	[SW2] presentation/project/paper/ report
[EKONL3_W08] has an advanced knowledge of the processes of changing elements, enterprises and whole structures of economic organisations, as well as the processes of changing social institutions, knows what their causes, course, scale, consequences are and what the influence of external stakeholders is on them	The student has knowledge of changes in economic structures and social institutions, understands their causes, course, effects, and the role of external stakeholders—particularly in the context of transport within the value chain.	[SW1] oral statement/ conversation/discussion
[EKONL3_K04] is willing to think and act in an entrepreneurial manner; adapts to new situations and conditions, takes on the challenges of creative thinking, is resilient in the face of failure, is able to identify risks and assess the risks of failure	The student is ready to think and act entrepreneurially in the field of transport and logistics, adapts to changing conditions, identifies risks within the value chain, assesses their likelihood, and responds creatively and resiliently to challenges.	[SK1] oral statement/conversation/ discussion [SK5] implementation of a problem task
[EKONL3_U08] has the ability to observe, understand and analyse economic and social phenomena and processes using appropriate scientific methods	The student is able to observe, understand, and analyse economic and social phenomena and processes,particularly those related to transport within the value chain,using appropriate scientific methods.	[SU2] presentation/project/paper/ report
[EKONL3_U14] is ble to set priorities, plan and organize the implementation of individual and team tasks, as well as monitor and evaluate progress in achieving set goals.	The student is able to set priorities, plan and organise tasks, as well as monitor and evaluate progress in their implementation.	[SU8] observation of student's independent or team work
[EKONL3_K03] participates in the preparation of economic and social projects, being able to reconcile legal, economic, ecological, political and social requirements	The student participates in the development of socio-economic projects, balancing legal, economic, environmental, political, and social requirements.	[SK2] presentation/project/paper/ report

Subject contents	**1. Introduction to transport in the value chain** • The concept of the value chain • The role of transport as a component of added value • Examples of model application in practice (retail, manufacturing, e-commerce sectors) • Local versus global value chains **2. The use of transport systems in value chain development** • Characteristics of main modes of transport: road, rail, maritime, air, intermodal • Selection of transport mode in relation to logistics strategy • Factors affecting transport efficiency (time, cost, reliability) **3. The impact of transport management and costs on value chain efficiency** • Planning and organisation of transport (the role of TMS, scheduling, optimisation) • Transport costs: structure, analysis, and impact on total delivery costs • Outsourcing and 3PL / 4PL services benefits and risks 4. **Transport, sustainable development and new technologies** • Environmental impact of transport green logistics, carbon footprint • Technologies supporting efficient and eco-friendly transport (IoT, e-mobility, GPS, automation, alternative fuels) • The role of regulations and innovation in transforming transport 5. **Transport risk and resilience in the value chain** • Sources and consequences of transport-related risk in the value chain • Transport risk assessment and management • Supply chain resilience and flexible transport models **6. Efficient value chains case studies** • Automotive industry • Food production • Chemical and pharmaceutical sectors 7. **Workshop project transport analysis and optimisation** The course is carried out both during class sessions and outside of class through the preparation of a project in teams of 2–4 students. The project is discussed with and approved by the instructor before being presented during class. Any doubts regarding the issues discussed during classes can be discussed during consultations.
Prerequisites and co-requisites	A basic understanding of microeconomics and macroeconomics
Assessment methods and criteria	

Subject passing criteria	Passing threshold	Percentage of the final grade
Class participation – 10%;	51.0%	10.0%
Attendance and punctuality – 10%	51.0%	10.0%
Project work – 80%;	51.0%	80.0%

Recommended reading	Basic literature	1. Borkowski P., (2025), Transport w łańcuchach wartości, Wyd. UG, Gdańsk; 2. Skowron-Grabowska B. (2021), Łańcuchy wartości w zarządzaniu organizacjami. Wyzwania innowacyjno-kryzysowe, PWE; 3. Skowronek, Cz., Sarjusz-Wolski, Z. (2020). Logistyka w systemie zarządzania. PWE. 4. P. Borkowski, Badanie łańcuchów wartości w kontekście rozwoju innowacyjności na Dolnym Śląsku, Wrocław 2022, https://umwd.dolnyslask.pl/fileadmin/user_upload/Gospodarka/Aktualnosci/12.2022_Raport_koncowy_Badanie_lancuchow_wartosci_w_kontek
	Supplementary literature	1. Witkowski, J. (2019). Zarządzanie łańcuchem dostaw. PWE. 2. Gołembska, E. (red.) (2013). Kompendium wiedzy o logistyce. PWN. 3. Raporty branżowe (np. DHL, McKinsey, PwC, OECD Transport Outlook)
	eResources addresses	
Example issues/ example questions/ tasks being completed	During consultations, the details of project implementation will be discussed, and any questions or concerns regarding individual projects will be clarified. Current issues and challenges raised by students will also be addressed.	
Work placement	Not applicable	

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