University of Gdańsk

Subject card

Subject name and code	Shared Mobility , PG_00200405						
Field of study	Logistics and Mobility						
Date of commencement of studies	October 2026		Academic year of realisation of subject		2027/2028		
Education level	Bachelor's studies		Subject group		Obligatory subject group in the field of study 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	2		Language of instruction		English		
Semester of study	4		ECTS credits		3.0		
Learning profile	academic		Assessment form		credit		
Conducting unit							
Name and surname of lecturer (lecturers)	Subject supervisor		dr Elżbieta Adamowicz				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	30.0	0.0	15.0	0.0	45
	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	45		0.0		30.0	75
Subject objectives	The aim of the course is to familiarize students with the concept of sharing economy and shared mobility as a key element of modern transport systems, sustainable development and smart cities. Students will gain theoretical and practical knowledge of different models of sharing means of transport (e.g. carsharing, bikesharing, ridesharing, e-scootersharing) and understand their impact on the economy, environment, urban planning, consumer behaviour and transport policy.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[LML3_W02] has advanced knowledge of different types of entities that require logistics support or provide logistics services	The student is able to recognize and characterize the roles of entities involved in the creation, provision and operation of shared mobility services requiring logistical support.	[SW4] test/exam - oral or written [SW2] presentation/project/paper/ report
	[LML3_U06] uses its knowledge of economics, finance, management, logistics and mobility to resolve economic and social dilemmas arising in its professional work	The student is able to apply interdisciplinary knowledge to analyze and solve socio-economic problems related to the implementation and functioning of shared mobility systems.	[SU2] presentation/project/paper/ report [SU4] test/exam - oral or written
	[LML3_W09] has advanced knowledge of the evolution of theories describing logistics and mobility	The student is able to explain how the development of the concept of shared mobility fits into the evolution of logistics and mobility theory.	[SW4] test/exam - oral or written [SW2] presentation/project/paper/ report
	[LML3_W04] knows the types of economic and social ties and the regularities governing them, has knowledge of the ties between companies requiring logistics support or providing logistics services	The student is able to analyse the links between entities participating in shared mobility systems and assess their needs and relationships in the context of logistical support.	[SW4] test/exam - oral or written [SW2] presentation/project/paper/ report
	[LML3_K03] participates in the preparation of logistics and mobility projects, being able to reconcile legal, economic, ecological, political and social requirements	The student is able to design a shared mobility solution, taking into account legal, economic, ecological and social conditions.	[SK2] presentation/project/paper/ report [SK4] test/exam - oral or written

Subject contents	**I. Sharing Economy concept** (history of a sharing economy concept, growth factors, features, conditions, challenges, sharing economy market) **II. Ride sharing as a part of the sharing economy** (sharing economy in transport sector, transport modal split, EU policy, sustainable development, urban transport problems, passengers behaviour and preferences) **III. Shared mobility as an innovation in passenger transport** (innovative concepts of passenger transport: electric vehicles, autonomous vehicles, sustainable transport management and organisation, key IT solutions supporting passengers, shared mobility) **IV. Car as a non-private means of transport** (car-sharing, car-pooling, business models, ridesharing mobile applications - the usage, new markets, legal issues, impact on modal split) **V. Bike sharing** (definition, history and market growth, impact on environment and public health, financing, enablers and barriers to popularization for introduction and popularization (e.g. infrastructure, weather conditions, fleet rebalancing) **VI. E-scooter sharing and moped sharing** (shared e-scooters mopeds as a complementary mode of urban transportation, market growth, the infrastructure problems,fleet rebalancing problem in comparison to the bike-sharing services) **VII. Mobility as a Service (MaaS)** (concept, implementations, challenges) **VIII. Impact of shared mobility on passenger transport in urban areas**(identification of factors influencing changes in passengers behaviour, travel time savings as a motivation, the impact of shared mobility on sustainable urban development) The course is delivered both during scheduled classes and outside class through students' independent completion of projects, which are consulted with the course instructor.
Prerequisites and co-requisites	none
Assessment methods and criteria	

Subject passing criteria	Passing threshold	Percentage of the final grade
project	51.0%	50.0%
test	51.0%	50.0%

Recommended reading	Basic literature	Henriette Cornet, Maria Gkemou, *Shared Mobility Revolution, Pioneering Autonomous Horizons*, Springer Cham, 2025. (https://link.springer.com/content/pdf/10.1007/978-3-031-71793-2.pdf) Junfeng Jiao, *Shared Mobility*, Elsevier, 2021. Bielinski T., Ważna A., Electric Scooter Sharing and Bike Sharing User Behaviour and Characteristics, Sustainability, 2020, 12(22), 9640, available on-line: https://www.mdpi.com/2071-1050/12/22/9640/htm
	Supplementary literature	Ata M. Khan, Susan A. *Shaheen, Shared Mobility and Automated Vehicles*, IET, 2021. Schäfer M.A., A Critical Review of New Mobility Services for Urban Transport, Transportation Research Procedia, Elsevier, Vol. 14, 2016, available on-line:https://www.sciencedirect.com/science/article/pii/S2352146516302836
	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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