University of Gdańsk

Subject card

Subject name and code	Transport systems planning, PG_00201356		
Field of study	Spatial Management		
Date of commencement of studies	October 2026	Academic year of realisation of subject	2026/2027
Education level	Master'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	1	Language of instruction	Polish
Semester of study	2	ECTS credits	1.0
Learning profile	academic	Assessment form	credit
Conducting unit			
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. Oleksandr Radchenko	
	Teachers		

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	2.0	8.0	25

Subject objectives

The purpose of the course is to introduce students to the functioning of various types of individual and mass transport in Poland and around the world, as well as to show contemporary trends in transport planning and to make students aware of the prospects for its development. To acquire the ability to apply the basic principles of shaping and locating facilities and networks of transport infrastructure on a regional and local scale,

Learning outcomes

Course outcome	Subject outcome	Method of verification
[GPMU2_K03] is ready to initiate and organise activities for the benefit of society and environmental protection of the region, country and Europe in cooperation with various entities and authorities at various levels	K_K03 (P7S_KO) is prepared to initiate action to improve the urban environment through better organization and planning of transportation public transport, including environmentally friendly transport.	[SK4] test/exam - oral or written
[GPMU2_W05] recognises development trends in the field of socio-economic geography and spatial management	K_W05 (P7S_WG) The student knows and understands the main development trends in the field of operation and development of individual and mass transport	[SW4] test/exam - oral or written
[GPMU2_U01] formulates and solves complex and unusual problems of spatial management and proposes their innovative solutions, taking into account the unpredictability of spatial processes	K_U01 (P7U_U) uses his/her knowledge and solves complex and non-standard problems in the field of urban transportation network design.	[SU4] test/exam - oral or written

Subject contents	1. Definition of basic terms: transportation vs. communication, urban transportation, public transportation, mass transportation, individual transportation. Types of modes of transport and their advantages and disadvantages under certain conditions.2. Stages of development of urban public transport and its impact on the spatial structure of cities. Changes in the importance of public transport in cities in the face of the development of individual motorization.3. Technical, economic and spatial conditions of development of urban and individual transport.4. Functioning of public transport systems in selected cities of Poland and the world.5. Modern trends in planning and organizing public transport systems.6. Prospects for the development of public transportation in the cities of Poland (in the context of Poland's membership in the EU) and the world. Strategies of transport development In view of contemporary trends in urban development (including suburbanization, revitalization).7. Shaping of public and individual transportation systems in urbanized areas.
Prerequisites and co-requisites	

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
lecture (test)	51.0%	100.0%

Recommended reading

Basic literature

Lijewski T., 1986, Geografia transportu Polski, PWE, Warszawa.Koziarski S., 2005, Transport w Europie, Wydawnictwo Uniwersytetu Opolskiego, Opole, Wydawnictwa Komunikacji i Łączności, Warszawa.Rudnicki A., 1999, Jakość komunikacji miejskiej, Stowarzyszenie Inżynierów i Techników Komunikacji, Kraków.Wesołowski J., 2008, Miasto w ruchu. Dobre praktyki w organizowaniu transportu miejskiego, Instytut Spraw Obywatelskich, Łódź.Wyszomirski O. (red.), 2008, Transport miejski. Ekonomika i organizacja, Wydawnictwo Uniwersytetu Gdańskiego, Gdańsk.Taylor Z., 2007, Rozwój i regres sieci kolejowej w Polsce, IGiPZ PAN, Warszawa.Koziarski S., 1996, Przekształcenia struktury przestrzennej sieci kolejowej w Polsce i na świecie, Państwowy Instytut Naukowy Instytut Śląski w Opolu, Opole.Koziarski S., 2004, Rozwój przestrzenny sieci autostrad na świecie, Studia i Monografie UO, Uniwersytet Opolski, Opole.Grzywacz W., Wojewódzka-Król K., Rydzkowski W., 2003, Polityka transportowa, Wydawnictwo Uniwersytetu Gdańskiego, Gdańsk.Połom M., Palmowski T., 2009, Rozwój i funkcjonowanie komunikacji trolejbusowej w Gdyni, Wydawnictwo Bernardinum, Gdynia-Pelplin.Pijet-Migoń E., 2012, Zmiany rynku lotniczych przewozów pasażerskich w Polsce po akcesji do Unii Europejskiej, Rozprawy Naukowe Instytutu Geografii i Rozwoju Regionalnego Uniwersytetu Wrocławskiego nr 25, Wrocław.Soczówka A., 2012, Zróżnicowanie struktury przestrzennej komunikacji miejskiej w konurbacji katowickiej, Prace Wydziału Nauk o Ziemi UŚ, nr 76, Katowice.Wiśniewski Ł., 2015, Zróżnicowanie dostępności transportowej miast w województwie łódzkim, Wydawnictwo Uniwersytetu Łódzkiego, Łódź

	Supplementary literature	Połom M., Tarkowski M., Puzdrakiewicz K., 2018, Urban Transformation in the Context of Rail Transport Development: The Case of a Newly Built Railway Line in Gdańsk (Poland), Journal of Advanced Transportation, Article ID 1218041, s. 1-15.Połom M., Tarkowski M., 2018, Rola Pomorskiej Kolei Metropolitalnej w kształtowaniu struktury przestrzenno-funkcjonalnej Gdańska, Studia Miejskie, 30, s. 39-55.Połom M., Beger M., Topa E., 2017, Badania nad dostępnością pieszą i transportem zbiorowym do parków miejskich na przykładzie Gdańska, Studia Miejskie, 27, s. 25-38.Puzdrakiewicz K., 2017, Zastosowanie zielonej infrastruktury do zmniejszenia negatywnych zjawisk spowodowanych transportem w środowisku miejskim, Prace Komisji Geografii Komunikacji PTG, 20(2), s. 69-78.Wendt J. (red.), 2002, Wybrane zagadnienia geografii transportu, Uniwersytet Szczeciński, Szczecin.Wendt J., 1999, Geopolityczne aspekty tranzytu w Europie Środkowej, IGiPZ PAN, Warszawa.Zaleski J., 1978, Ogólna geografia transportu morskiego w zarysie, Ossolineum, Wrocław.
	eResources addresses	
Example issues/ example questions/ tasks being completed	What role does the Silesian Aviation Cluster play in the transport system of Poland t?Answer: the Silesian Aviation Cluster was established with the aim of:- strengthen cooperation between companies, - create optimal conditions for continuous transfer of knowledge- innovative solutions between cluster members coming not only from the aviation industry, but also from other branches of science and industry.- Production of gliders, light and ultralight aircraft- Production of modules for aircraft engines - Unmanned aircraft- Overhaul services for aviation- Training services for the aviation industry	
Work placement	Not applicable	

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