



## Subject card

Subject name and code	Fundamentals of transportation systems, PG_00060633						
Field of study	Transport and Logistics						
Date of commencement of studies	October 2026	Academic year of realisation of subject				2026/2027	
Education level	first-cycle 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	1	ECTS credits				3.0	
Learning profile	general academic profile	Assessment form				assessment	
Conducting unit	Division of Automation and Marine Energy -> Institute of Naval Architecture -> Faculty of Mechanical Engineering and Ship Technology -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. inż. Jerzy Kowalski					
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	15.0	0.0	0.0	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	3.0	27.0	75		
Subject objectives	Gaining knowledge about transportation systems, their divisions and their importance for economy						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	[K6_U06] can use appropriate methods and tools in accordance with the formulated specification; can perform a simple engineering task in the field of design, manufacture and operation of transport means and systems	uses and verifies information from specialized and publicly available knowledge bases in the field of transport systems			[SU2] Assessment of ability to analyse information		
	[K6_U05] can formulate a simple engineering task and its specification in the field of design, maintenance and operation of transport means and systems	formulates simple engineering tasks in the field of transport systems			[SU1] Assessment of task fulfilment		
	[K6_W05] has established knowledge in the field of design, construction and operation of transport means and systems	has knowledge of transport processes and systems useful for understanding general transport structures and transport chains			[SW1] Assessment of factual knowledge		
Subject contents	Course content – lecture The role of transportation system in country's economy, the range of transportation processes, project modes of transportation systems. Organisation of transportation processes of people and goods. Application of manners for realization of transportation tasks. Supervising of transportation processes. Operating investigations.						
Prerequisites and co-requisites	Basic knowledge in technics.						
Assessment methods and criteria	Subject passing criteria	Passing threshold			Percentage of the final grade		
	lecture test	60.0%			50.0%		
	evaluation of task	60.0%			50.0%		

Recommended reading	Basic literature	<p>Rydzkowski W., Wojewódzka-Król K, <i>Transportation</i>, PWN Warszawa 2010</p> <p>Jacyna M., <i>Modelling and verification of transportation systems</i>, Politechnika Warszawska Warszawa 2009</p> <p>Jakubowski L., <i>Technology of loading and unloading systems</i>, Politechnika Warszawska, Warszawa 2009</p> <p>Piskozub A., <i>Economy of transportation. Część I</i>, Uniwersytet Gdański. Skrypty uczelniane. Gdańsk 1971</p> <p>Wronka J.: <i>Combined and intermodal transportation (Theory and practice)</i>, Szczecin: Uniwersytet Szczeciński, 2008</p> <p>Grzywacz W., <i>Infrastructure of transportation</i>. WKiŁ, Warszawa 2003</p> <p>Wojewódzka-Król K. (red.), Rolbiecki R. (red.), : <i>Infrastructure of transportation</i>. Gdańsk: Wydawnictwo Uniwersytetu Gdańskiego, 2009</p> <p>Krzystek R. (red), <i>Integrated systems of transportation safety</i>. Gdańsk: WKiŁ i PG, 2009</p>
	Supplementary literature	Worlds Technical Press
	eResources addresses	
Example issues/ example questions/ tasks being completed	What are the reasons to lead amodel investigations of transportation systems?	
Practical activites within the subject	Not applicable	

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