



Subject card

Subject name and code	Introduction to Transportation Systems, PG_00044534						
Field of study	Transport						
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				exam	
Conducting unit	Department of Transportation Engineering -> Faculty of Civil and Environmental Engineering -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Krystian Birr					
	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	5.0	25.0	75		
Subject objectives	The aim of the course is to provide students with information relating to transport systems, definitions and concepts related to transport. Students gain knowledge and skills in the field of classification, functioning of transport systems in different modes of transport, intermodal transport and get to know the impact of transport on the economy, environment and safety.						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	[K6_W06] has knowledge to understand transportation development planning considering economic, spatial, ecological, and social conditions and the consequences of transportation activities	The student has a basic understanding of the role and place of transport in the economy and social life, within the system of sciences and its relations with other areas of knowledge. The student is familiar with the main tasks of systems in the area of the functioning and development of enterprises and the state. The student understands the functioning of transport systems and their subsystems.			[SW1] Assessment of factual knowledge		
	[K6_U07] able to identify the influence of management mechanisms, technological progress, spatial policy, environmental protection, and safety on the functioning and development of transportation and to incorporate it into the process of planning, designing, construction, and operation of transportation infrastructure and systems.	The student is able to solve specific problems arising in technical systems. The student can evaluate the construction and functioning of transport systems and their subsystems.			[SU4] Assessment of ability to use methods and tools		
Subject contents	Course content – lecture Introduction - Sustainable transport. Basic definitions. Transport systems. Development of transport. Transport today. The future of transport. Transport chains and processes. Technology and organization of transport. Transport conveyences. Positive and negative impacts of transport. Transport network. Road transport system. Air transport. Water transport system. Rail transport. Urban transport system. Assessment of the transportation system.						

Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
		50.0%	40.0%
		60.0%	60.0%
Recommended reading	Basic literature	Rydzkowski W., Wojewódzka-Król K.: Transport, PWN, 2007 r. Grzywacz W. i inni: Polityka transportowa. WUG,2000	
	Supplementary literature	Bentkowska – Senator. K i inni: Transport samochodowy ładunków. ITS 2009 Gilbert R., Perl A.: Transport Revolutions: Moving people and freight without oil. FSC 2008. Naider J.: Transport międzynarodowy. PWE, 2008 Wojewódzka – Król K., Rolbiecki R.: Infrastruktura Transportu. Wydawnictwo UG 2009. Czasopismo: Transport Miejski i Regionalny	
	eResources addresses		
Example issues/ example questions/ tasks being completed	Selected aspects of the history of transport development. Characteristics of selected transport systems (regional, national). Overview of selected innovative transport systems.		
Practical activities within the subject	Not applicable		

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