



Subject card

Subject name and code	Introduction to Transportation Systems, PG_00044534						
Field of study	Transport						
Date of commencement of studies	October 2024		Academic year of realisation of subject		2024/2025		
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						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. inż. Kazimierz Jamroz				
	Teachers		dr hab. inż. Kazimierz Jamroz dr inż. Krystian Birr mgr inż. Łukasz Jeliński				
Lesson types and methods of instruction	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	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	Adresy na platformie eNauczanie:	
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.		
Work placement	Not applicable		

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