



Subject card

Subject name and code	Introduction to Transportation Systems, PG_00044534						
Field of study	Transport						
Date of commencement of studies	October 2023			Academic year of realisation of subject		2023/2024	
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	2			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						
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_W08] understands the theoretical basis of transport processes and systems which is useful for understanding the general transport structures and transport chains	The student has basic knowledge about the place and role of transport in the economy and social life, in the system of sciences and relations with other areas of knowledge. The student knows the main tasks of systems in the area of functioning and economic development of enterprises and the state. The student knows the functioning of transport systems and its subsystems.			[SW1] Assessment of factual knowledge		
	[K6_U11] able to describe and assess critically the design of basic means of transport and systems of transport, able to select methods for organising their technical operation	Student is able to solve specific problems that appear in technical systems. Student is able to assess the construction and functioning of transport systems and 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		
			60.0%		60.0%		
			50.0%		40.0%		

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	