



Subject card

Subject name and code	Modes of transport, PG_00064172						
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				assessment	
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. Łukasz Jeliński				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	15.0	0.0	0.0	0.0	30
	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	30	5.0	40.0	75		
Subject objectives	Acquire knowledge of the use of modern means of transport including technological and organisational solutions.						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	[K6_K01] able to think and act creatively and enterprisingly; able to define priorities to support the delivery of an individual or group task; understands the need for continuous education and taking responsibility as a professional for their work and the work of the team	Ability to think and act creatively, and entrepreneurially; ability to prioritise to complete an individual or group task; understanding of the need for continuous learning and professional responsibility for one's own and the team's activities.			[SK5] Assessment of ability to solve problems that arise in practice [SK4] Assessment of communication skills, including language correctness [SK3] Assessment of ability to organize work [SK2] Assessment of progress of work [SK1] Assessment of group work skills		
	[K6_W02] has knowledge of physics, mechanics, electrical engineering, hydromechanics, thermodynamics, materials science, and measurement techniques necessary to understand the phenomena occurring in transportation, as well as the principles of construction and operation of infrastructure and means of transport	Acquiring knowledge of physics, mechanics, electrotechnics, hydromechanics, thermodynamics, material science and measurement techniques necessary for understanding transport phenomena and the principles of construction and operation of infrastructure and means of transport			[SW3] Assessment of knowledge contained in written work and projects [SW2] Assessment of knowledge contained in presentation [SW1] Assessment of factual knowledge		
	[K6_U03] able to document a self-elaborated transport problem and present it in Polish and a foreign language, draft and read technical drawings	Ability to document and present in Polish and foreign language a problem developed by him/her in the field of means of transport, to prepare and read technical drawings.			[SU5] Assessment of ability to present the results of task [SU4] Assessment of ability to use methods and tools [SU3] Assessment of ability to use knowledge gained from the subject [SU2] Assessment of ability to analyse information [SU1] Assessment of task fulfilment		

Subject contents	Course content – lecture MaaS (Mobility as a Service). Collaborative systems (CITS). Applications in transport management. Decision support and vehicle security systems. Support for transport safety management systems.		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Pass workshops	90.0%	40.0%
	Pass the lectures	60.0%	60.0%
Recommended reading	Basic literature	Cooperative Intelligent Transport Systems: Towards high level automated driving. Meng Lu. 2019.	
	Supplementary literature	<p>Strony internetowe i czasopisma</p> <p>IEEE TRANSACTIONS ON INTELLIGENT TRANSPORTATION SYSTEMS, IEEE TRANSPORTATION RESEARCH, PART C: EMERGING TECHNOLOGIES, PERGAMON-ELSEVIER SCIENCE DIRECT, JOURNAL OF INTELLIGENT TRANSPORTATION SYSTEMS, TAYLOR &amp; FRANCIS INTERNATIONAL JOURNAL OF VEHICLE INFORMATION AND COMMUNICATION SYSTEMS, INDERS SCIENCE ENTERPRISES, IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY, IEEE</p>	
	eResources addresses		
Example issues/ example questions/ tasks being completed	What are the considerations for MaaS implementations. How MaaS differs from TaaS. Examples and effects of C-ITS applications in transport management.		
Practical activities within the subject	Not applicable		

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