GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Modes of transport, PG_00064172		
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	assessment
Conducting unit	Department of Transportation Engineering -> Faculty of Civil and Environmental Engineering		
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. inż. Jacek Oskarbski	
	Teachers	dr hab. inż. Jacek Oskarbski dr inż. Zbigniew Kędra mgr inż. Łukasz Jeliński mgr inż. Konrad Biszko	

Lesson types and methods of instruction	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

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	Strony internetowe i czasopismaIEEE TRANSACTIONS ONINTELLIGENT TRANSPORTATIONSYSTEMS,IEEETRANPORTATION RESEARCH, PART C:EMERGINGTECHNOLOGIES, PERGAMON-ELSEVIER SCIENCELTDJOURNAL OF INTELLIGENT TRANSPORTATIONSYSTEMS,TAYLOR & FRANCIS INCINTERNATIONAL JOURNAL OFVEHICLE INFORMATION ANDCOMMUNICATION SYSTEMS,INDERSCIENCE ENTERPRISESIEEE TRANSACTIONS ONVEHICULAR TECHNOLOGY, IEEE
eResources addresses	Adresy na platformie eNauczanie: Środki transportu 2024/25 Transport - Moodle ID: 42562 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=42562

Example issues/ example questions/ tasks being completed

What are the considerations for MaaS implementations. How MaaS differs from TMaaS. Examples and effects of C-ITS applications in transport management.

Work placement

Not applicable

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