GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Traffic Engineering, PG_00056201		
Field of study	Transport and Logistics		
Date of commencement of studies	October 2022	Academic year of realisation of subject	2023/2024
Education level	first-cycle studies	Subject group	
Mode of study	Full-time studies	Mode of delivery	at the university
Year of study	2	Language of instruction	Polish
Semester of study	4	ECTS credits	2.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Institute of Ocean Engineering and Ship Technology -> Faculty of Mechanical Engineering and Ship Technology		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Jacek Nakielski	
	Teachers	dr inż. Jacek Nakielski	

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	30.0	0.0	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	15.0	50

Subject objectives

- familiarization with methods to improve the efficiency and safety in the transport of water and land,

- understanding of the basic principles of traffic control aquatic and terrestrial;

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_U07] applies knowledge on humanities, social and economical science in solving problems	It is not a humanistic subject The student knows the structure and principles of operation of water and land transport systems	[SU2] Assessment of ability to analyse information [SU3] Assessment of ability to use knowledge gained from the subject
[K6_W07] has a general knowledge on humanities, social and economical sciences. Knows the rules of creating the forms of personal entrepreneurship and economic activity, has knowledge on the protection of intellectual property rights and industrial property rights and copyrights	It is not a humanistic subject. The student is able to assess the structure of the transport system in terms of efficiency, ecology and safety	[SW1] Assessment of factual knowledge [SW2] Assessment of knowledge contained in presentation

<table>
<tr><td>Subject contents</td><td>- the role of traffic engineering in various fields of transportation,
- the nature of the marine environment,
- rules for the organization of maritime traffic,
- safety of navigation in restricted areas,
- elements of the safety of the ship: the drive maneuverability, carrying cargo, navigation equipment,
- inland waterways: European transport routes, class, facts, investments,
- infrastructure of inland waterways, transport
- pilotage waterways,
- railways: European transport routes, class, investment trends,
- railway infrastructure, means of transport;
- principles of rail traffic, traffic control systems,
- roads: European transport routes, class, investment trends,
- motorways, road junctions, horizontal and vertical signage, traffic control systems,
- security threats on Polish roads
- ports and logistics centers: construction planning, organization;</td></tr>
<tr><td>Prerequisites and co-requisites</td><td>Basic knowledge on the structure of means of transport</td></tr>
<tr><td>Assessment methods and criteria</td><td><table><tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr><tr><td>colloquium</td><td>60.0%</td><td>100.0%</td></tr></table></td></tr>
<tr><td>Recommended reading</td><td><table><tr><td>Basic literature</td><td>GUCMA, S.: Inżynieria ruchu morskiego. Okrętownictwo i Żegluga. Gdańsk 2001.

JAGNISZCZAK, I., ŁUSZNIKOW, E.: Bezpieczeństwo nawigacji. Fundacja Promocji Przemysłu Okrętowego i Gospodarki Morskiej. Gdańsk 2010.

KOLASZEWSKI, A., ŚWIDWIŃSKI P.: Żeglarz i sternik jachtowy. Almapress, Wa-wa 2002.

DĄBROWSKA-BAJON, M.: Podstawy sterowania ruchem kolejowym, Politechnika Warszawska, Warszawa 2002.

CIEŚLAKOWSKI, S.: Stacje kolejowe. Wydawnictwa Komunikacji i Łączności, Wa-wa 1992.

GACA, S., SUCHORZEWSKI, W., TRACZ, M.: Inżynieria ruchu drogowego. Teoria i praktyka. WKŁ, 2011

KRYSTEK, R.: Węzły drogowe i autostradowe. WKŁ 2008,</td></tr><tr><td>Supplementary literature</td><td>-</td></tr></table></td></tr>
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	eResources addresses	Podstawowe https://www.researchgate.net/profile/Bogusz-Wisnicki/publication/281292577_Vademecum_konteneryzacji_-_Formowanie_kontenerowej_jednostki_ladunkowej/links/578548dd08aec5c2e4e11c3b/Vademecum-konteneryzacji-Formowanie-kontenerowej-jednostki-ladunkowej.pdf - forming a container load unit https://pdf.nauticexpo.com/pdf/mac-gregor/cargo-handling-book/30588-103189.html - McGregorr Cargo Handling Book https://mgm.gov.pl/wp-content/uploads/2017/11/ekspertyza_rozwoju_srodladowych_drog_wodnych.pdf - Expert opinion on the development of inland waterways in Poland https://dbc.wroc.pl/Content/1322/PDF/srodladowy_transport_wodny.pdf - KULCZYK, WINTER: Inland water transport Adresy na platformie eNauczanie: Inżynieria ruchu (PG_00056201) - WYKŁAD - WIMiO, TiL, Systemy Transportu Wodnego, sem 4, roka akademicki 2023/2024, lato - Moodle ID: 37295 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=37295
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	