GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	, PG_00065284		
Field of study	Transport		
Date of commencement of studies	February 2024	Academic year of realisation of subject	2024/2025
Education level	second-cycle studies	Subject group	
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	2.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Faculty of Civil and Environmental Engineering		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Sławomir Grulkowski	
	Teachers		

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	0.0	0.0	30

Subject objectives

Obtaining basic information on the technique and organization of railway transport.

Transmission of the message on vertical management in rail traffic

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K7_K01] recognizes the importance of knowledge related to the field of study in solving cognitive and practical problems	Identifies rolling stock and personnel needs. Determines the use of transport potential using scientific methods	[SK5] Assessment of ability to solve problems that arise in practice [SK1] Assessment of group work skills
[K7_U05] cooperates with other people in the implementation of team work, both as a leader and a team member, effectively achieving set goals	Is able to identify and define the role of transport in a given location and economic situation. Is able to establish a hierarchy of means of transport with the team	[SU3] Assessment of ability to use knowledge gained from the subject [SU4] Assessment of ability to use methods and tools
[K7_K02] makes competent and ethical decisions, caring for the public interest and maintaining economic, social and environmental values	Is able to choose the preferred transport system in a given situation. Is able to calculate the capacity of the means of transport	[SK2] Assessment of progress of work [SK3] Assessment of ability to organize work
[K7_U02] presents logical and solid arguments regarding the obtained results, through analysis, synthesis of information in various technical contexts, critically approaching their interpretation	It can analyze data from transport systems in order to integrate them	[SU3] Assessment of ability to use knowledge gained from the subject [SU4] Assessment of ability to use methods and tools
[K7_W01] identifies in an in-depth way phenomena related to the field of study as well as theories describing them and possible methods of analyzing processes occurring in the life cycle of technical systems	The student is able to determine the capacity of a station and a railway line. He is able to create a timetable.	[SW1] Assessment of factual knowledge

<table>
<tr><td>Subject contents</td><td>LECTURE

Rules and procedures for running train traffic on the railway network.

Timetable preparation procedure

Technology of passenger transport

Technology of rail freight Interoperability

Capacity of lines and railway stations.

TUTORIALS

Cyclical timetable

Circulation and rotation of the composition

Calculation of bandwidth</td></tr>
<tr><td>Prerequisites and co-requisites</td><td>Basic information on the subjects Railway Traffic Engineering and Rail Transport Infrastructure</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>Tutorials</td><td>60.0%</td><td>50.0%</td></tr><tr><td>Test</td><td>60.0%</td><td>50.0%</td></tr></table></td></tr>
<tr><td>Recommended reading</td><td><table><tr><td>Basic literature</td><td>Jacyna M., Gołębiowski P., Krześniak M., Szkopiński J., Organizacja ruchu kolejowego, Warszawa, 2019.

Żurkowski A., Pawlik M., Ruch i przewozy kolejowe. Sterowanie ruchem, Warszawa, 2010.

Żurkowski A., Ewolucja i nowoczesne zasady budowy wykresu ruchu pociągów pasażerskich, Logistyka, 3, 2014.

Nowosielski L., Organizacja przewozów kolejowych, KOW, Warszawa, 1999</td></tr><tr><td>Supplementary literature</td><td>Urbanyi-Popiołek I., Ekonomiczne i organizacyjne aspekty transportu, Wyższa Szkoła Gospodarki w Bydgoszczy, Bydgoszcz, 2013

Zalewski P., Siedlecki P., Drewnowski A., Technologia transportu kolejowego, WKŁ, Waeszawa, 2004.</td></tr><tr><td>eResources addresses</td><td>Adresy na platformie eNauczanie:</td></tr></table></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td>What is train and shunting?

Cyclical, integrated timetable

Calculation of transport needs</td></tr>
<tr><td>Work placement</td><td>Not applicable</td></tr>
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