



Subject card

Subject name and code	Management and organization of railway traffic, PG_00044650						
Field of study	Transport						
Date of commencement of studies	October 2021	Academic year of realisation of subject			2024/2025		
Education level	first-cycle studies	Subject group			Optional subject group 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	4	Language of instruction			Polish		
Semester of study	7	ECTS credits			4.0		
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	30.0	0.0	0.0	15.0	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		10.0		45.0	100
Subject objectives	Obtaining basic information on the technique and organization of railway traffic. Transmission of the message on vertical management in rail traffic						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_W17] has proficiency in transport systems as appropriate for their specialty		The student is able to interpret movement problems and find a solution.		[SW1] Assessment of factual knowledge		
	[K6_U12] able to select tools and methods, carry out assessments and simple tests of transport systems to an extent required of the specialty / learning profile		The student is able to design and evaluate the effectiveness of the timetable. Can assess bandwidth parameters and find solutions to problems		[SU2] Assessment of ability to analyse information [SU4] Assessment of ability to use methods and tools		

Subject contents	<p>LECTURE</p> <p>Rules and procedures for running train traffic on the railway network.</p> <p>Timetable preparation procedure</p> <p>Technology of passenger transport</p> <p>Technology of rail freight Interoperability</p> <p>Capacity of lines and railway stations.</p> <p>PROJECTS</p> <p>Cyclical timetable</p> <p>Circulation and rotation of the composition</p> <p>Calculation of bandwidth</p>											
Prerequisites and co-requisites	Basic information on the subjects Railway Traffic Engineering and Rail Transport Infrastructure											
Assessment methods and criteria	<table border="1"> <thead> <tr> <th data-bbox="451 936 798 981">Subject passing criteria</th> <th data-bbox="798 936 1141 981">Passing threshold</th> <th data-bbox="1141 936 1487 981">Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td data-bbox="451 981 798 1008">Test</td> <td data-bbox="798 981 1141 1008">60.0%</td> <td data-bbox="1141 981 1487 1008">50.0%</td> </tr> <tr> <td data-bbox="451 1008 798 1048">Projects</td> <td data-bbox="798 1008 1141 1048">60.0%</td> <td data-bbox="1141 1008 1487 1048">50.0%</td> </tr> </tbody> </table>			Subject passing criteria	Passing threshold	Percentage of the final grade	Test	60.0%	50.0%	Projects	60.0%	50.0%
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Projects	60.0%	50.0%										
Recommended reading	Basic literature	<p>Jacyna M., Gołębiowski P., Krześniak M., Szkopiński J., Organizacja ruchu kolejowego, Warszawa, 2019.</p> <p>Żurkowski A., Pawlik M., Ruch i przewozy kolejowe. Sterowanie ruchem, Warszawa, 2010.</p> <p>Żurkowski A., Ewolucja i nowoczesne zasady budowy wykresu ruchu pociągów pasażerskich, Logistyka, 3, 2014.</p> <p>Nowosielski L., Organizacja przewozów kolejowych, KOW, Warszawa, 1999</p>										
	Supplementary literature	<p>Urbanyi-Popiołek I., Ekonomiczne i organizacyjne aspekty transportu, Wyższa Szkoła Gospodarki w Bydgoszczy, Bydgoszcz, 2013</p> <p>Zalewski P., Siedlecki P., Drewnowski A., Technologia transportu kolejowego, WKŁ, Waeszawa, 2004.</p>										
	eResources addresses	Adresy na platformie eNauczanie:										
Example issues/ example questions/ tasks being completed	<p>What is train and shunting?</p> <p>Cyclical, integrated timetable</p> <p>Calculation of transport needs</p>											
Work placement	Not applicable											