



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	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.		
	PROJECTS		
	Cyclical timetable		
	Circulation and rotation of the composition		
	Calculation of bandwidth		
Prerequisites and co-requisites	Basic information on the subjects Railway Traffic Engineering and Rail Transport Infrastructure		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Test	60.0%	50.0%
	Projects	60.0%	50.0%
Recommended reading	Basic literature	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	
	Supplementary literature	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, Warszawa, 2004.	
	eResources addresses	Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed	What is train and shunting?		
	Cyclical, integrated timetable		
	Calculation of transport needs		
Work placement	Not applicable		