



Subject card

Subject name and code	Planning and organization of railway works, PG_00062463						
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			3.0		
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. Zbigniew Kędra					
	Teachers	dr inż. Kamila Szwackiewicz dr inż. Zbigniew Kędra					
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	15.0	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		5.0		25.0	75
Subject objectives	The aim of the course is to teach students how to plan track works in the field of: costing, organization and scheduling of repairs railway works.						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	[K7_K02] makes competent and ethical decisions, caring for the public interest and maintaining economic, social and environmental values	Makes competent and economical decisions when planning and organizing railway works			[SK5] Assessment of ability to solve problems that arise in practice		
	[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 cooperate in a group when implementing issues related to planning and organizing railway track repairs			[SU1] Assessment of task fulfilment [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	He has in-depth knowledge of planning and organizing railway works.			[SW1] Assessment of factual knowledge		
	[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 presents logical arguments for the adopted technological and organizational solutions.			[SU5] Assessment of ability to present the results of task [SU2] Assessment of ability to analyse information		
	[K7_K01] recognizes the importance of knowledge related to the field of study in solving cognitive and practical problems	Is aware of the importance of knowledge in the field of planning and organizing railway works			[SK1] Assessment of group work skills [SK5] Assessment of ability to solve problems that arise in practice		

Subject contents	<p><b>Lectures:</b> Characteristics and scope of rail road maintenance. Planning railway works. Bill of quantities. Cost estimation rules for railway works. Types and rules of execution of work schedules. Rules for preparing line schedules. Rules for preparing complex schedules. Technology and organization of railway works. Mechanization of railway works.</p> <p><b>Project end laboratory:</b> Elaboration of technology, organization and planning of selected track works (track tamping, ballast cleaning, rail grinding, track and turnout ballasting, material transport, earthworks). Execution of the bill of quantities of railway works. Preparation of cost estimate for railway works. Planning the organization of railway works. Schedule of a repair. Discussion and presentation of the planned repair.</p>		
Prerequisites and co-requisites	Knows the basic technologies of railway works and the basics of their planning.		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Lecture	50.0%	40.0%
	Exercises	60.0%	30.0%
	Laboratory	100.0%	30.0%
Recommended reading	Basic literature	<p>Kędra Z.: Technologia robót torowych. Wydawnictwo Politechniki Gdańskiej, Gdańsk, 2017.</p> <p>Warunki techniczne wykonania i odbioru robót nawierzchniowo-podtorzowych. Id-114, PKP PLK S.A.</p> <p>Kędra Z.: Materiały dydaktyczne z wykładów do przedmiotu .</p>	
	Supplementary literature	<p>KNR 2-37 Nawierzchnie kolejowe w torach o prześwicie normalnym</p> <p>KNR W-2-37 Budowa i remont nawierzchni torowych, tory o prześwicie normalnym 1435 mm</p> <p>KNP 16 Roboty torowe</p>	
	eResources addresses	<p>Adresy na platformie eNauczanie:</p> <p>Utrzymanie dróg szynowych - Transport - 2024/25 - Moodle ID: 35166  <a href="https://enauczanie.pg.edu.pl/moodle/course/view.php?id=35166">https://enauczanie.pg.edu.pl/moodle/course/view.php?id=35166</a></p>	
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		

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