



Subject card

Subject name and code	Diagnostics of railways, PG_00044674						
Field of study	Transport						
Date of commencement of studies	October 2021	Academic year of realisation of subject			2023/2024		
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	3	Language of instruction			Polish		
Semester of study	6	ECTS credits			4.0		
Learning profile	general academic profile	Assessment form			exam		
Conducting unit	Department of Railway Engineering -> Faculty of Civil and Environmental Engineering						
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Zbigniew Kędra					
	Teachers	dr inż. Zbigniew Kędra dr inż. Kamila Szwackiewicz					
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	The aim of the course is to familiarize students with the diagnostics of railroads and to teach basic methods and techniques for measuring and assessing the condition of the railroad.						
Learning outcomes	Course outcome	Subject outcome		Method of verification			
	[K6_W18] has proficiency in transport infrastructure as appropriate for their specialty	Has ordered knowledge in the field of railway road diagnostics					
	[K6_U13] able to select tools and methods, carry out assessments and simple tests of transport infrastructure and means of transport to an extent required of the specialty / learning profile	Can select tools and methods as well as carry out simple measurements and assessment of the condition of the railroad					
Subject contents	Railroad diagnostics. Track geometry quality. Diagnostics of railway track elements. Diagnostics of railway turnouts. Diagnostics of the CWR.						
Prerequisites and co-requisites							
Assessment methods and criteria	Subject passing criteria	Passing threshold		Percentage of the final grade			
	Exam	50.0%		50.0%			
	Project	50.0%		50.0%			

Recommended reading	Basic literature	<p>Warunki techniczne utrzymania nawierzchni na liniach kolejowych Id-1 (D-1)</p> <p>Warunki techniczne utrzymania podtorza kolejowego Id-3</p> <p>Instrukcja o oględzinach, badaniach technicznych i utrzymaniu rozjazdów Id-4</p> <p>Instrukcja diagnostyki nawierzchni kolejowej Id-8</p> <p>Instrukcja o dokonywaniu pomiarów, badań i oceny stanu torów Id-14 (D-75)</p>
	Supplementary literature	<p>Instrukcja o dozorowaniu linii kolejowych Id-7</p> <p>Instrukcja badań defektoskopowych szyn, spoin i zgrzein w torach kolejowych Id-10 (D-16)</p> <p>Wytyczne ultradźwiękowych badań złączy szynowych zgrzewanych i spawanych Id-17</p> <p>Instrukcja dla toromistrza Id-9 (D-15)</p>
	eResources addresses	<p>Adresy na platformie eNauczanie:</p> <p>Diagnostyka dróg szynowych - Transport - 2023/24 - Moodle ID: 35159 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=35159</p>
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	