



Subject card

Subject name and code	Design of Track Layouts, PG_00044237						
Field of study	Civil Engineering						
Date of commencement of studies	October 2020		Academic year of realisation of subject		2023/2024		
Education level	first-cycle studies		Subject group		Optional subject group		
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		3.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department of Railway Engineering -> Faculty of Civil and Environmental Engineering						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Kamila Szwaczekiewicz				
	Teachers		dr inż. Kamila Szwaczekiewicz mgr inż. Piotr Omieczyski				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	0.0	15.0	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		5.0		40.0	75
Subject objectives	The aim of subject is obtainment of knowledge and abilities concerning rail surface construction and design of small stations geometric systems.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_U17] has specialized skills in civil engineering within offered specialization		The student can prepare the project data and design basic turnout route, calculate number of tracks for small railway stations, calculate overall length of station tracks, design station track layout, design the access to the platforms along with the platforms				
	[K6_W16] Has deeper and adequate knowledge of civil engineering, within offered specialization		The student interprets the geometric and physical parameters describing the geometric systems. The student knows the principles of track layouts designing.				
Subject contents	Railway turnouts design and geometry. Track connections. Track connections shaping and sizing. Railway track junctions design. Railway stations classification. Passenger stations. Goods stations. Marshalling yards. Parking stations. Calculation elements of passenger stations, goods stations and marshalling yards.						
Prerequisites and co-requisites	Railroads						
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	Test		60.0%		51.0%		
	Project		100.0%		49.0%		

Recommended reading	Basic literature	<p>1. Massel A.: Projektowanie linii i stacji kolejowych. PKP Polskie Linie Kolejowe, Warszawa 2010.</p> <p>2. Skibiński K.: Budowa kolei żelaznych : połączenia torów. Cz. 1. Obrachowanie połączeń torów. Nakładem komisji wydawniczej biblioteki politechnicznej. Lwów 1897.</p> <p>3. Chelmecki W.: Stacje kolejowe cz. I. Politechnika Krakowska, Kraków 1997.</p> <p>4. Chelmecki W.: Stacje kolejowe cz. II. Politechnika Krakowska, Kraków 2001.</p>
	Supplementary literature	<p>1. Cieślakowski S.J.: Stacje kolejowe. WKŁ, Warszawa 1992.</p> <p>2. Węgiński J.: Układy torowe stacji. WKŁ, Warszawa 1974.</p>
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	