



Subject card

Subject name and code	Technology of Track Works , PG_00041394						
Field of study	Civil Engineering						
Date of commencement of studies	February 2025	Academic year of realisation of subject			2025/2026		
Education level	second-cycle studies	Subject group			Optional subject group		
Mode of study	Full-time studies	Mode of delivery			at the university		
Year of study	2	Language of instruction			Polish		
Semester of study	3	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. Zbigniew Kędra				
	Teachers						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	0.0	0.0	30.0	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	Expanding knowledge of technology trackwork. Discussion of modern machines for of rail track work.						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	[K7_U15] has advanced skills in civil engineering within offered specialization/profile	Is able to plan the implementation of railway works and prepare documentation for the construction and repair of railways			[SU1] Assessment of task fulfilment		
	[K7_W15] has deep and adequate knowledge of civil engineering, within offered specialization and profile	Has structured knowledge in the field of organization and planning of railway works			[SW2] Assessment of knowledge contained in presentation		
	[K7_K01] is aware of necessity of professional competences improvement; obeys the professional ethics code	Understands the need to constantly improve professional qualifications and supplement knowledge in the field of technology and organization of railway works			[SK3] Assessment of ability to organize work [SK5] Assessment of ability to solve problems that arise in practice		
	[K7_K04] understands the necessity of dissemination civil engineering knowledge in the society and to support the professional ethos of a civil engineer	He understands the need to provide the public with knowledge in the field of railway road construction			[SK4] Assessment of communication skills, including language correctness		
	[K7_W08] has deep knowledge of railway track construction, including high speed railroads; design and renovation of railroads of complex geometry; has detailed knowledge about diagnostics of railroads, knows basics of railway traffic organisation and control	Has structured knowledge in the field of construction, repair and modernization of railways			[SW2] Assessment of knowledge contained in presentation		
Subject contents	Maintenance and repair of railway tracks. Mechanization railway works. Grinding rails. Tamping the track. Cleaning of ballast. Welding of rails. Continuous repair of railway track and subgrade. Modern machinery for construction and maintenance of railways. Planning railway works.						
Prerequisites and co-requisites							
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	Presentation		60.0%		100.0%		

Recommended reading	Basic literature	Kędra Z.: Technologia robót torowych. Wydawnictwo Politechniki Gdańskiej, Gdańsk, 2015
	Supplementary literature	Publications in journals and conferences.
	eResources addresses	Adresy na platformie eNauczenie:
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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