



Subject card

Subject name and code	Seminar on Railways, PG_00041395						
Field of study	Civil Engineering						
Date of commencement of studies	February 2024	Academic year of realisation of subject			2024/2025		
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	1	Language of instruction			Polish		
Semester of study	2	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						
	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	The aim of subject is increasing by the students their knowledge on the problems with the railways through unassisted elaboration (on the basis of available literature) selected detail problems, presentation of paper, and surrender it of public discussion.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[K7_K05] can manage a team in a responsible way, regarding the rules of occupational safety and health	The student is able to lead a team on specific tasks, in a responsible manner, respecting the principles of work safety	[SK4] Assessment of communication skills, including language correctness [SK5] Assessment of ability to solve problems that arise in practice [SK3] Assessment of ability to organize work [SK1] Assessment of group work skills
	[K7_W15] has deep and adequate knowledge of civil engineering, within offered specialization and profile	The student has a structured and advanced knowledge with the field of civil engineering, speciality transportation engineering, diploma profile railways	[SW1] Assessment of factual knowledge [SW2] Assessment of knowledge contained in presentation
	[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	The student has a structured and theoretically encouraged knowledge with the railways' construction and design of complex track geometric systems	[SW1] Assessment of factual knowledge [SW3] Assessment of knowledge contained in written work and projects [SW2] Assessment of knowledge contained in presentation
	[K7_U09] is able to design railway tracks of complex geometry on sections and stations, both newly designed and renovated; can make a plan and perform diagnostic of railway track and to interpret its results, propose conclusions; can evaluate durability and reliability of railroad elements	The student can design the complex track geometric systems of railway lines and stations, newly built as well as modernized; knows calculation algorithms and is able to evaluate in critical way applied methods of design and construct of railway lines	[SU1] Assessment of task fulfilment [SU3] Assessment of ability to use knowledge gained from the subject [SU4] Assessment of ability to use methods and tools
[K7_U15] has advanced skills in civil engineering within offered specialization/profile	The student has an advanced abilities with field of civil engineering, speciality transportation engineering, diploma profile railways	[SU2] Assessment of ability to analyse information [SU4] Assessment of ability to use methods and tools [SU3] Assessment of ability to use knowledge gained from the subject	
Subject contents	The subject matter involves a widely understood problems with the design, construct and exploitation of railways. A choose of detail problems belongs to the student; he lays down the papers and presentations.		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	appraisal of papers	50.0%	60.0%
	appraisal of presentations	50.0%	40.0%
Recommended reading	Basic literature	1. Bałuch H.: Układy geometryczne połączeń torów. WKŁ. Warszawa 1989. 2. Koc W.: Elementy teorii projektowania układów torowych. Wyd. Pol. Gdańskiej 2004. 3. Grulkowski S., Kędra Z., Koc W., Nowakowski M.: Drogi szynowe. Wyd. Pol. Gdańskiej, Gdańsk 2013 (skrypt w formacie pdf, link do wersji pełnotekstowej: pbc.gda.pl/dlibra/docmetadata?id=30780). 4. Mieloszyk E., Grulkowski S., Milewska A.: Hazardous material-related propagation of the effects of train accidents in the subgrade. Transportation Overview - Przegląd Komunikacyjny 10/2018. 5. Listings acquired single-handedly by a student, including printed on dotcom pages.	
	Supplementary literature	Not required	
	eResources addresses	Adresy na platformie eNauczanie:	

Example issues/ example questions/ tasks being completed	Thematic area of performed papers is very wide; a key role plays here student's invention and desire to present an interesting problem for the listeners.
Work placement	Not applicable

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