GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Railway transport safety management, PG_00062460		
Field of study	Transport		
Date of commencement of studies	February 2025	Academic year of realisation of subject	2025/2026
Education level	second-cycle studies	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 Transportation Engineering -> Faculty of Civil and Environmental Engineering -> Faculties of Gdańsk University of Technology		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Sławomir Grulkowski	
	Teachers		

Lesson types

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 familiarize the student with the principles and procedures of the safety management system and the maintenance management system in relation to the railway system.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K7_U01] creates innovative solutions to complex and unstructured problems, taking into account the variability of the environment by synthesizing information from many sources, using analytical, simulation and experimental methods	The student is able to apply knowledge about the structures and functions of the transport system to solve specific problems. The student is able to apply appropriate methods of managing the investment process	[SU1] Assessment of task fulfilment [SU2] Assessment of ability to analyse information
[K7_W02] explains the importance and interdependence of key components describing transport systems and processes and their environment, using in-depth knowledge in accordance with the main trends in the development of scientific disciplines related to the field of study	The student is able to classify and identify risk. Is able to evaluate risk. Finds ways to reduce risk	[SW1] Assessment of factual knowledge
[K7_K02] makes competent and ethical decisions, caring for the public interest and maintaining economic, social and environmental values	The student understands the specifics of managing transport systems. He is able to classify values resulting from transport management.	[SK5] Assessment of ability to solve problems that arise in practice [SK1] Assessment of group work skills

Subject contents

Course content – lecture
Railway accident statistics, Accident classification. Safety Management System. Common Safety Methods. Risk valuation and assessment methods. Risk monitoring. Maintenance Management System. Institutional activities in the field of rail transport safety

Prerequisites and co-requisites

Ability to identify risks. Risk reduction principles

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Tasks to be done	50.0%	50.0%
Final Test	50.0%	50.0%

Recommended reading	Basic literature	Directive (EU) 2016/798 of the European Parliament and of the Council of 11 May 2016 on railway safety Commission Implementing Regulation (EU) No 402/2013 of 30 April 2013 on the common safety method for risk evaluation and assessment and repealing Regulation (EC) No 352/2009 Commission Delegated Regulation (EU) 2018/762 of 8 March 2018 establishing common safety methods on safety management system requirements pursuant to Directive (EU) 2016/798 of the European Parliament and of the Council and repealing Commission Regulations (EU) No 1158/2010 and (EU) No 1169/2010
	Supplementary literature	Safety management system requirements for safety certification or safety authorisation
	eResources addresses	
Example issues/ example questions/ tasks being completed	Risk Analysis Procedures Creating a Risk Catalog Risk Assessment	
Practical activites within the subject	Not applicable	

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