GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Transport project management, PG_00044665
Field of study	Transport

Date of commencement of studies	October 2021	Academic year of realisation of subject	2024/2025
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 Transportation Engineering -> Faculty of Civil and Environmental Engineering

Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Roksana Licow
	Teachers	dr inż. Roksana Licow
		mgr inż. Natalia Karkosińska-Brzozowska

Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	15.0	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	5.0	25.0	75

Subject objectives	The aim of the course "Transport Project Management" is to familiarize students with the principles of preparing and implementing investment processes in the transport sector, particularly in the areas of investment planning, task organization, coordination, and monitoring of activities within transport projects. Students will acquire knowledge about the stages of the project lifecycle, from the initial concept, through the planning and execution phases, to project closure (including project settlement and warranty period consideration). The entire body of knowledge is delivered in accordance with legal regulations and FIDIC principles, including risk management, scheduling, budgeting, and quality control. The course will also cover techniques and tools supporting effective transport project management, as well as strategies for minimizing potential issues and delays.

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[K6_K02] understands the need to formulate and communicate to the public information and opinions on the achievements of environmental engineering and other aspects of work of a sanitary industry engineer; is aware of the importance of and understands non-technical aspects and consequences of engineering; takes steps to communicate such information and opinions in a comprehensible manner and present different points of view	The student is able to specify the requirements for a transport project and verify the project team members in terms of the tasks assigned to them, taking into account their qualifications and competencies. The student can list and describe the stages of project management, their conditions, and the risks that occur at each stage. The student has knowledge of the implementation of transport projects using public funds in compliance with the Public Procurement Law. The student solves real-life problems (case studies) where the group seeks optimal solutions, and therefore the student considers and understands the different perspectives of the various parties to the contract.	[SK2] Assessment of progress of work [SK5] Assessment of ability to solve problems that arise in practice [SK4] Assessment of communication skills, including language correctness [SK3] Assessment of ability to organize work [SK1] Assessment of group work skills
	[K6_W18] has proficiency in transport infrastructure as appropriate for their specialty	The student possesses knowledge of the elements of rail transport infrastructure, as well as issues related to the planning, design, construction, maintenance, modernization/revitalization/ specific repairs of railway infrastructure. The student is knowledgeable about the current challenges faced during design processes and the regulations and legal standards governing these processes (including FIDIC).	[SW3] Assessment of knowledge contained in written work and projects [SW2] Assessment of knowledge contained in presentation [SW1] Assessment of factual knowledge
	[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	The student is able to select appropriate software tools for preparing an investment schedule, a project graph, and a descriptive project report.	[SU5] Assessment of ability to present the results of task [SU3] Assessment of ability to use knowledge gained from the subject [SU2] Assessment of ability to analyse information [SU1] Assessment of task fulfilment

Subject contents	The following topics are planned as part of the course "Transport Project Management":
	1. From concept to Feasibility Study characteristics of the document and what it should include in the context of a rail transport investment.
	2. Securing funding for projects EU funds and national funds, discussion of current projects, and the characteristics of CUPT (Center for EU Transport Projects).
	3. Preparation of tender documentation discussion of the following documents:
	Terms of Reference (SWZ),
	Instructions for Contractors (IDW),
	Functional-Utility Program (PFU),
	Offer Price (RCO).
	4. Necessary documents in the design, construction, and acceptance process their characteristics, how to fill them out, and where to submit them (which authority).
	5. Conditional amount, project engineer, resident engineer discussion of the unique possibilities of FIDIC standards supporting investment processes.
	6. Project warranty and sustainability period.
	7. Risk and critical path in transport projects discussion of management methods.
	8. Scheduling in transport projects.
	All of these stages are closely integrated with their practical application during exercises and project work. For each case, the case-study method is used, based on real situations that arise during the processes of design, construction, and acceptance. Additionally, the FIDIC standards from the Yellow Book "Design and Build" are applied during the classes.
Prerequisites and co-requisites	The student has the ability to work with a spreadsheet.

Assessment methods and criteria			
Subject passing criteria	Passing threshold	Percentage of the final grade
Practical tasks	60.0%	25.0%
Project	60.0%	25.0%
Test	60.0%	50.0%

Recommended reading	Basic literature	1. Journal of Laws 1994, No. 89, item 414 Construction Law
		2. Act of September 11, 2019 Public Procurement Law
		3. Jaspers Blue Book: Railway Sector, Center for EU Transport Projects
		4. Plant and Design-Build Contract, 2nd Edition (2017 Yellow Book)

	Supplementary literature	1. Z. J. Boczek, FIDIC Contract Conditions: Key Contractual Considerations in the Implementation of Construction Investments, Consultant Bulletin
		2. E. Baker, B. Mellors, S. Chalmers, A. Lavers, FIDIC Contracts: Law and Practice, 2013
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed	Sample Test Questions:	
	1. What is the durability period for a project funded by EU funds?	
	2. Describe the process for applying for a waiver from technical and construction regulations.	
	3. What is a conditional amount, and which document regulates its amount?	
	Sample Exercise Task:	
	Determine the impact area of the investment and present the results of the supply analysis in the existing state for a selected transport investment.	
	Sample Project Task:	
	During the design phase, it is discovered that construction works will interfere with the infrastructure of a telecommunications company and a gas company. What should be done?	
Work placement	Not applicable	

Document generated electronically. Does not require a seal or signature.