



## Subject card

Subject name and code	Road transport infrastructure , PG_00044607						
Field of study	Transport						
Date of commencement of studies	October 2024	Academic year of realisation of subject			2025/2026		
Education level	first-cycle studies	Subject group			Obligatory subject group in the field of study Subject group related to scientific research in the field of study		
Mode of study	Full-time studies	Mode of delivery			at the university		
Year of study	2	Language of instruction			Polish		
Semester of study	4	ECTS credits			4.0		
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. Marcin Budzyński					
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	0.0	30.0	0.0	60
	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	60	5.0	35.0	100		
Subject objectives	Gaining knowledge in the design and construction of road transport infrastructure.						
Learning outcomes	Course outcome	Subject outcome	Method of verification				
Subject contents	Course content – lecture LECTURES General conditions for the development of the road network. Planning, design and investment process in road construction. Classifications of roads and road interchanges, criteria for choosing solutions. Principles of dimensioning of road elements - road cross-section, situational plan, longitudinal profile. Principles of designing road intersections and junctions. Principles of designing devices for pedestrians, bicycles and public transport. Principles of designing other road transport facilities (car parks, bus stations, terminals, depots, toll stations, passenger service areas). Devices in the road lane (drainage, lighting, other media). Roadside. Road safety and road conditions. Road construction - basic principles of earthworks execution. Road surface classifications. Layout and functions of pavement layers. Road materials (asphalts, aggregates, asphalt mixtures). Design of pavement structures. Asphalt and concrete pavements.  PROJECT Preliminary design of a rural road section, definition of the road surface structure.						
Prerequisites and co-requisites							
Assessment methods and criteria	Subject passing criteria	Passing threshold			Percentage of the final grade		
	Exam	60.0%			50.0%		
	Project	60.0%			50.0%		

Recommended reading	Basic literature	<p>1. Wojewódzka-Król K., Rolbiecki R. ; Transport infrastructure. Ed. University of Gdańsk, 2008</p> <p>2. Road and highway interchanges. Work edited by Prof. R. Krystek. WKiŁ</p> <p>3. Gaca Stanisław, Suchorzewski Wojciech, Tracz Marian: Road traffic engineering. Theory and Practice, WKŁ, 2014.</p>
	Supplementary literature	<p>1. Catalog of typical flexible and semi-rigid pavement structures. GDDKiA, Warsaw, 2014</p> <p>2. Catalog of typical rigid pavement structures, GDDKiA, Warsaw, 2012</p> <p>3. Guidelines for designing road intersections, GDDKiA, 2001</p> <p>4. Regulation of the Minister of Transport and Maritime Economy of 2 March 1999 on the technical conditions to be met by public roads and their location</p>
	eResources addresses	
Example issues/ example questions/ tasks being completed	<p>Rules for selecting the type of road intersections and interchanges.</p> <p>Selection of cross-sections.</p> <p>Principles of designing a safe road infrastructure (intersections, junctions, infrastructure for pedestrians, cyclists, road surroundings).</p> <p>Principles of designing road surfaces.</p>	
Practical activities within the subject	Not applicable	

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