



## Subject card

Subject name and code	, PG_00065917						
Field of study	Civil Engineering						
Date of commencement of studies	October 2022		Academic year of realisation of subject		2024/2025		
Education level	first-cycle studies		Subject group		Obligatory subject group in the field of study		
Mode of study	Part-time studies		Mode of delivery		at the university		
Year of study	3		Language of instruction		Polish		
Semester of study	6		ECTS credits		3.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department Of Transportation Engineering -> Faculty Of Civil And Environmental Engineering -> Wydział Politechniki Gdańskiej						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Marcin Stienss				
	Teachers		dr inż. Marcin Stienss  dr inż. Marcin Budzyński				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	10.0	0.0	0.0	10.0	0.0	20
	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	20		0.0		0.0	20
Subject objectives	Getting basic knowledge on designing of intersections and pavement structures and on technology of road pavements.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[K6_W07] Understand the investment's impact on the environment and the interrelationships and dependencies between the building structure and the natural environment	The student has knowledge and demonstrates understanding of the impact of a road investment on the environment and the interconnections and dependencies between the planned road or highway and the natural environment	[SW1] Assessment of factual knowledge [SW3] Assessment of knowledge contained in written work and projects
	[K6_U03] Design engineering objects and details, processes and engineering systems by applying appropriate standards and methods of design.	The student is able to adjust the pavement structure to particular subgrade conditions and road traffic. He knows the basic rules of road pavements construction and road intersections design.	[SU5] Assessment of ability to present the results of task [SU4] Assessment of ability to use methods and tools [SU3] Assessment of ability to use knowledge gained from the subject [SU2] Assessment of ability to analyse information [SU1] Assessment of task fulfilment
	[K6_U07] Design and build engineering structures in a sustainable manner, with care for the natural environment and a minimum carbon footprint	The student is able to design road construction in a sustainable way, with care for the natural environment and a minimal carbon footprint	[SU5] Assessment of ability to present the results of task [SU4] Assessment of ability to use methods and tools [SU3] Assessment of ability to use knowledge gained from the subject [SU2] Assessment of ability to analyse information [SU1] Assessment of task fulfilment
	[K6_W03] Demonstrate knowledge and understanding of the processes, established standards and design methods in the civil engineering subject area and of their limitations.	The student has the ability to distinguish the characteristics of the basic technological processes in relation to requirements of pavement structure layers and selection of solutions. The student knows the principles of simple road intersection designing. The student is able to assess the conditions of road pavement operation.	[SW1] Assessment of factual knowledge [SW3] Assessment of knowledge contained in written work and projects
Subject contents	Road facilities. Basics of design of standards intersections. Classification of road pavements.Basics of design of pavement structure. Catalogue of typical pavement structures. Formation layer and capping layer. Road materials (bitumens, aggregates, asphalt mixes). Base layers stabilized with hydraulic binders. Unbound aggregate bases. Asphalt pavements.		
Prerequisites and co-requisites	Scope of lectures and designing from the subject "Roads and Motorways I"		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Project II	60.0%	30.0%
	Project I	60.0%	30.0%
	Pass of lectures sem V and VI	60.0%	40.0%
Recommended reading	Basic literature	1. Wzorce i Standardy projektowania WRD, Ministerstwo Infrastruktury. 2. Piłat J., Radziszewski P., Nawierzchnie asfaltowe, WKŁ, 2004 3. Szydło A., Nawierzchnie drogowe z betonu cementowego, Polski Cement, 2004 4. Katalog typowych konstrukcji nawierzchni podatnych i półsztywnych., GDDKiA, Warszawa, 2014	
	Supplementary literature	1. Błażejowski K., Styk S., Technologia warstw asfaltowych, WKŁ, 2009. 2. Judycki J i wsp.: Analizy i projektowanie konstrukcji nawierzchni podatnych i półsztywnych. WKŁ 2014	
	eResources addresses	Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed	e-Nauczaniu distance learning course		
Work placement	Not applicable		

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