

SDAŃSK UNIVERSITY 的 OF TECHNOLOGY

Subject card

Subject name and code	Roads Motorways II, PG_00049149								
Field of study	Civil Engineering								
Date of commencement of studies	October 2021		Academic year of realisation of subject			2023/2024			
Education level	cation 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	3		Language of instruction			Polish			
Semester of study	6		ECTS credits			2.0			
Learning profile	general academic profile		Assessment form			exam			
Conducting unit	Department of Transportation Engineering -> Faculty of Civil and Environmental Engineering								
Name and surname	Subject supervisor	ect supervisor		dr inż. Jacek Alenowicz					
of lecturer (lecturers)	Teachers								
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Projec	t	Seminar	SUM	
	Number of study hours	30.0	0.0	0.0	0.0		0.0	30	
	E-learning hours included: 0.0								
	Address on the e-learning platform: https://enauczanie.pg.edu.pl/moodle/course/view.php?id=10307								
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		15.0		50	
Subject objectives	Getting basic knowledge on designing of intersections and pavements and on technology of road pavements.								
Learning outcomes	Course outcome Subject outcome Method					Method of verif	ication		
	[K6_U13] knows principles of constrution of roads and railroads; can design a section of a road and railroad; can evaluate the technical condition of a road and railroad infrastructure		Student is able to design horizontal and vertical aligment of a road and choose proper crosssection, chose typical pavement structure, and define material and technological requirements.			[SU2] Assessment of ability to analyse information [SU3] Assessment of ability to use knowledge gained from the subject			
	[K6_W09] knows the principles of determining of loads acting on basic constructions (e.g. general, industrial, bridge, water, marine, transport objects) and rules of its constructing		Student has basic knowledge concerning the influence of vehicles on road network and pavement.			[SW1] Assessment of factual knowledge			
	[K6_W10] Has basic knowledge on design, construction and maintenence of roads and railroads		Student has basic knowledge on geometric design of road, road earthworks and subgrade of a pavement structure.			[SW1] Assessment of factual knowledge			
	[K6_W15] Has knowlege of construction law and environmetal impact of investment realisation		Sudent gets basic knowledge concerning the conditions of road design and location.			[SW1] Assessment of factual knowledge			
Subject contents	Classification and design standards for intersections and interchanges. Classification of road pavements. Design of pavement structure. Formation layer and capping layer. Road materials (bitumens, aggregates, asphalt mixes). Base layers stabilized with hydraulic binders. Unbound aggregate bases. Asphalt pavements. PCC pavements. Basics of pavement evaluation.								
Prerequisites and co-requisites									
Assessment methods	Subject passin	Passing threshold			Percentage of the final grade				
and criteria	Exam (Lectures V and VI sem)		60.0%			100.0%			

Recommended reading	Basic literature	 Węzły drogowe i autostradowe. Praca pod red. Prof. R. Krystka. WKiŁ Warszawa, 2008 Piłat J., Radziszewski P., Nawierzchnie asfaltowe, WKŁ, 2004 Szydło A., Nawierzchnie drogowe z betonu cementowego, Polski Cement, 2004 Katalog typowych konstrukcji nawierzchni podatnych i półsztywnych., GDDP, Warszawa, 2014 				
	Supplementary literature	 Błażejowski K., Styk S., Technologia warstw asfaltowych, WKŁ, 2009. Warunki techniczne jakim powinny odpowiadać drogi publiczne i ich usytuowanie. Dziennik Ustaw, Warszawa 2016 Judycki J i wsp.: Analizy i projektowanie konstrukcji nawierzchni podatnych i półsztywnych. WKŁ 2014 Głażewski M. i wsp. Roboty ziemne i rekultywacyjne w budownictwie komunikacyjnym, WKiŁ, 2010 				
eResources addresses		Adresy na platformie eNauczanie:				
Example issues/ example questions/ tasks being completed						
Work placement	Not applicable					