



Subject card

Subject name and code	Roads and Streets, PG_00044660							
Field of study	Transport							
Date of commencement of studies	October 2021	Academic year of realisation of subject			2023/2024			
Education level	first-cycle studies	Subject group			Optional subject group 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			4.0			
Learning profile	general academic profile	Assessment form			exam			
Conducting unit	Department of Transportation Engineering -> Faculty of Civil and Environmental Engineering							
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Jacek Alenowicz						
	Teachers							
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM	
	Number of study hours	30.0	0.0	15.0	0.0	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		50.0	100		
Subject objectives	Obtaining basic knowledge of road materials (soil, aggregates, bitumens, asphalt mixtures), pavementstructures, earthworks, drainage of roads.							
Learning outcomes	Course outcome	Subject outcome			Method of verification			
	[K6_W18] has proficiency in transport infrastructure as appropriate for their specialty	The student has knowledge to design a pavement structure for traffic and soil conditions and level of water in the soil and define requirements concerning materials and technology.						
	[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 can choose the quality of the materials needed to build of the road. The student is able to develop a simple technical specification for the designed road section						
Subject contents	The cross-section of the road. Basic rules for the implementation of earthworks and road drainage. Types of road pavements. Concrete pavements. Geosynthetics in road construction. Road materials: rock and aggregates, bitumen, asphalt mixtures. Improved subgrade, Base courses. Asphalt pavements. Soil survey, bitumen and asphalt mixtures. Design of flexible and rigid pavements.							
Prerequisites and co-requisites								
Assessment methods and criteria	Subject passing criteria	Passing threshold			Percentage of the final grade			
	lectures	60.0%			60.0%			
	laboratory	100.0%			40.0%			
Recommended reading	Basic literature	1. Piłat J., Radziszewski P.: Nawierzchnie asfaltowe. WKŁ 20042. Błażejowski K., Styk S.: Technologia warstw asfaltowych. WKŁ 20093. Judycki J i wsp.: Analizy i projektowanie konstrukcji nawierzchni podatnych i półsztywnych. WKŁ 2014						
	Supplementary literature	1. Szydło A.: Nawierzchnie drogowe z betonu cementowego. Polski Cement. 2004.2. Edel R. Odwodnienie dróg, WKiŁ, 20103. Głazewski M. i wsp. Roboty ziemne i rekultywacyjne w budownictwie komunikacyjnym, WKiŁ, 2010						

	eResources addresses	Adresy na platformie eNauzanie:
Example issues/ example questions/ tasks being completed	Properties of road bitumens.The research of subgrade capacity..Designing a flexible pavement structures.	
Work placement	Not applicable	