



Subject card

Subject name and code	Highway Materials Engineering, PG_00044223						
Field of study	Civil Engineering						
Date of commencement of studies	October 2020		Academic year of realisation of subject		2023/2024		
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		4.0		
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 hab. inż. Piotr Jaskuła				
	Teachers		dr hab. inż. Piotr Jaskuła				
			dr inż. Bohdan Dołżycki				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	15.0	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	To learn principles of material's type, laboratory testing and quality control of highway materials.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_W10] Has basic knowledge on design, construction and maintenance of roads and railroads		Design and test of asphalt mixtures.				
	[K6_U17] has specialized skills in civil engineering within offered specialization		Assessment of road pavements. Modern road materials.				
	[K6_W16] Has deeper and adequate knowledge of civil engineering, within offered specialization		Classifies and test aggregates, bituminous binders, asphalt mixtures.				
Subject contents	Classification and tests of aggregates. Bituminous binders: types, classification and tests. Types of asphalt mixtures and their applications. Asphalt mixture design and tests. Small size elements: kerbs, concrete paving blocks. Alternative materials, types and applications. Road pavement tests. Modern road materials.						
Prerequisites and co-requisites	No requirements.						
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	Written examination		60.0%		65.0%		
	Project		100.0%		35.0%		

Recommended reading	Basic literature	1. Piłat J., Radziszewski P., Nawierzchnie asfaltowe, WKŁ, 2004 2. Szydło A., Nawierzchnie drogowe z betonu cementowego, Polski Cement, 2004 3. Błażejowski K., Styk S., Technologia warstw asfaltowych, WKŁ, 2005 4. Edel R., Odwodnienie dróg, WKŁ 2002 5. Rolla S., Badania materiałów drogowych, WKŁ, 1985 6. Nowości techniki zagranicznej, zeszyty IBDiM Warszawa 7. The Asphalt Handbook, AI, 1989 8. Lilley, A Handbook of Segmental Paving, 1991
	Supplementary literature	No requirements.
	eResources addresses	Adresy na platformie eNauczanie:
	Example issues/ example questions/ tasks being completed	
Work placement	Not applicable	