



Subject card

Subject name and code	, PG_00060094								
Field of study	Civil Engineering								
Date of commencement of studies	February 2025	Academic year of realisation of subject		2025/2026					
Education level	second-cycle studies	Subject group							
Mode of study	Full-time studies	Mode of delivery		at the university					
Year of study	2	Language of instruction		Polish					
Semester of study	3	ECTS credits		3.0					
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. Jacek Alenowicz							
	Teachers								
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar			
	Number of study hours	0.0	0.0	0.0	0.0	30.0			
	E-learning hours included: 0.0								
eNauczanie source address: https://enauczanie.pg.edu.pl/moodle/course/view.php?id=19863									
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		0.0	0.0	30			
Subject objectives	Getting acquainted with the development in the field of materials and technologies used in road construction, with special focus on advanced laboratory testing and assessment of the quality of road materials and works. Own evaluation and proposal of independent solutions of problems from the field of road traffic engineering.								
Learning outcomes	Course outcome		Subject outcome		Method of verification				
	[K7_K01] is aware of necessity of professional competences improvement; obeys the professional ethics code		The student is aware of the need to improve professional and personal competences; including professional ethics because of development in material engineering and technologies as well as traffic engineering		[SK4] Assessment of communication skills, including language correctness [SK5] Assessment of ability to solve problems that arise in practice				
	[K7_W15] has deep and adequate knowledge of civil engineering, within offered specialization and profile		The student has knowledge related to the assessment of the properties of road materials, road technologies and road traffic engineering.		[SW2] Assessment of knowledge contained in presentation [SW1] Assessment of factual knowledge				
	[K7_U06] is able to choose proper tools (measuring, analytical or numerical) to solve engineering problems, to acquire, filtrate, proces and analyse data		The student is able to plan and conduct experiments related to the assessment of the properties of road materials, road technologies and road traffic engineering and to perform analysis of the results.		[SU5] Assessment of ability to present the results of task [SU4] Assessment of ability to use methods and tools [SU2] Assessment of ability to analyse information				

Subject contents	Course content – seminar Presentation research publications concerning the topics connected to contemporary road materials and technologies. Discussion concerning the presentations and presented research topics. Analysis of real cases (problems) from the field of road traffic engineering, discussion and proposal of improvement of current state.				
Prerequisites and co-requisites	Knowledge from the subjects "Teoria nawierzchni i materiałoznawstwo drogowe" oraz "Organizacja i sterowanie ruchem drogowym" in sem II.				
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade		
	Completeness of presentation, knowledge	60.0%	50.0%		
	Form of presentation and discussion	60.0%	25.0%		
	Activity during seminars	50.0%	25.0%		
Recommended reading	Basic literature	Nowości techniki zagranicznej, Zeszyty IBDIM, Materiały z konferencji międzynarodowych: RILEM, AAPT Amerykańskie raporty badawcze, Road Materials and pavement Design, International Journal of Pavement Engineering, internet, S. Datka, W. Suchorzewski, M. Tracz, Inżynieria ruchu, W. S. Młodożeniec Budowa dróg - podstawy projektowania, Wytyczne WR-D.			
	Supplementary literature	internet			
	eResources addresses				
Example issues/ example questions/ tasks being completed	<p>Testing and evaluation of the cracking resistance of asphalt mixtures.</p> <p>Evaluation of the design strength of geosynthetics in engineering structures.</p> <p>Evaluation of recycled asphalt pavement (RAP) quality.</p> <p>Contemporary bridge pavements.</p> <p>Transportation problems in mass events.</p> <p>Road class as an indicator of its accessibility.</p> <p>Selection of intersection type in built-up areas.</p> <p>Combining of pedestrian/bicycle/car traffic in common area.</p>				
Practical activites within the subject	Not applicable				

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