



Subject card

Subject name and code		Road and Motorway Construction II, PG_00049207						
Field of study		Civil Engineering						
Date of commencement of studies		October 2024		Academic year of realisation of subject		2024/2025		
Education level		second-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		Part-time studies		Mode of delivery		at the university		
Year of study		1		Language of instruction		Polish		
Semester of study		2		ECTS credits		3.0		
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 hab. inż. Marek Pszczoła				
		Teachers						
Lesson types and methods of instruction		Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
		Number of study hours	15.0	10.0	0.0	0.0	0.0	25
		E-learning hours included: 0.0						
		Adresy na platformie eNauczanie:						
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	25	5.0		45.0		75
Subject objectives		Specify and expand knowledge of geometric road design and pavement design.						
Learning outcomes		Course outcome		Subject outcome		Method of verification		
		[K7_U08] Is able to evaluate technical condition of a road, to design its pavement and choose proper construction technology using mechanistic methods and material investigations		It is possible to assess the technical condition of roads, design the pavement structure and select the appropriate construction technologies using mechanistic methods and materials testing		[SU2] Assessment of ability to analyse information [SU3] Assessment of ability to use knowledge gained from the subject [SU4] Assessment of ability to use methods and tools		
		[K7_U07] is able to design elements of road network, to apply the rules of traffic organisation and control, taking into account economy, safety and environmental factors,		is able to design elements of the road network, apply the principles of designing organization and traffic control systems, taking into account economic, safety and environmental protection aspects		[SU2] Assessment of ability to analyse information [SU4] Assessment of ability to use methods and tools [SU3] Assessment of ability to use knowledge gained from the subject		
		[K7_W06] has expanded knowledge about traffic theory, planning of road networks and junctions design, regarding economy, safety and environmental aspects		has extended knowledge of motion theory road network planning and design of road junctions from considering aspects of economics, safety and environmental protection		[SW2] Assessment of knowledge contained in presentation [SW1] Assessment of factual knowledge [SW3] Assessment of knowledge contained in written work and projects		
		[K7_W07] has expanded knowledge of theory of road and airport pavements, pavement maintenance, advanced methods of material testing and construction technologies		has extended knowledge of the theory of road and airport pavement construction, pavement maintenance, advanced materials testing methods and special works technologies		[SW1] Assessment of factual knowledge [SW3] Assessment of knowledge contained in written work and projects		

Subject contents	<p>1. News on road, interchange and intersection design.</p> <p>2. Knowledge about design with particular emphasis on safety.</p> <p>3. Knowledge about surface design by mechanistic methods.</p>		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Attendance	50.0%	20.0%
	Exercises performed	70.0%	80.0%
Recommended reading	Basic literature	Regulation of the Minister of Transport and Maritime Economy of March 2, 1999 on the technical conditions to be met by public roads and their location (Journal of Laws of 2016, item 124, i.e.	
	Supplementary literature	Ochrona Piesznych podręcznik dla organizatorów ruchu pieszego. KRBRD 2014	
	eResources addresses		
Example issues/ example questions/ tasks being completed	<p>1. Calculate the parameters of vertical arches.</p> <p>2. Design the surface for the road with given parameters.</p>		
Work placement	Not applicable		