COURSE DESCRIPTION CARD – SPECIMEN

<table>
<tr><td colspan="10">Faculty of Civil Engineering and Environmental Sciences</td></tr>
<tr><td>Field of study</td><td colspan="6">Civil Engineering</td><td colspan="2">Degree level and programme type</td><td>Bachelor’s degree Full-time study</td></tr>
<tr><td>Specialization/ diploma path</td><td colspan="6">-</td><td colspan="2">Study profile</td><td>academic</td></tr>
<tr><td rowspan="2">Course name</td><td colspan="6" rowspan="2">Basics of road engineering</td><td colspan="2">Course code</td><td>19284107H</td></tr>
<tr><td colspan="2">Course type</td><td>obligatory</td></tr>
<tr><td rowspan="2">Forms and number of hours of tuition</td><td>L</td><td>C</td><td>LC</td><td>P</td><td>SW</td><td>FW</td><td>S</td><td>Semester</td><td>3</td></tr>
<tr><td>1</td><td></td><td></td><td>1</td><td></td><td></td><td></td><td>No. of ECTS credits</td><td>2</td></tr>
<tr><td>Entry requirements</td><td colspan="9">-</td></tr>
<tr><td>Course objectives</td><td colspan="9">Acquainting students with the land transportation infrastructure characteristics and basics of road design.</td></tr>
<tr><td>Course content</td><td colspan="9"><u>Lecture:</u>
Characteristic of land transportation. Fundamentals of road's horizontal and vertical alignment, characteristics of road cross-section elements. Characteristics of road construction and road drainage systems. Public transport policy - development strategies, characteristics and priorities for public transport. Basics of road intersections and traffic engineering. Basics of road traffic safety.
<u>Project:</u>
Elaboration of a geometry design of a rural road including calculations and graphical interpretation of horizontal and vertical alignment of a road and cross-sections on straight and superelevation segments of the road.</td></tr>
<tr><td>Teaching methods</td><td colspan="9">Lecture - informative lecture, problem lecture</td></tr>
<tr><td>Assessment method</td><td colspan="9">Lecture - written exam
Project classes – evaluation of student's projects and preparation for the classes, written test</td></tr>
<tr><td>Symbol of learning outcome</td><td colspan="7">Learning outcomes</td><td colspan="2">Reference to the learning outcomes for the field of study</td></tr>
<tr><td>LO1</td><td colspan="7">Student characterizes different land transportation modes</td><td colspan="2">K_B1_W04, K_B1_W07, K_B1_U06 K_B1_U23</td></tr>
<tr><td>LO2</td><td colspan="7">Student identifies parameters related to traffic engineering</td><td colspan="2">K_B1_W08, K_B1_W18, K_B1_U13, K_B1_U18</td></tr>
</table>

LO3	Student knows the bases of horizontal and vertical road and alignment and cross-section design	K_B1_W11, K_B1_U16	
LO4	Student identifies basic transport and safety problems	K_B1_U007, K_B1_U17	
LO5	Student cooperates in teams	K_B1_U14	
Symbol of learning outcome	Methods of assessing the learning outcomes	Type of tuition during which the outcome is assessed	
LO1	written test	L	
LO2	evaluating student's projects and preparation for the classes , tests on the lecture content	L, P	
LO3	evaluating student's projects and performance in classes	P	
LO4	written test	L	
LO5	evaluating student's performance in classes	P	
LO6			
Student workload (in hours)		No. of hours	
Calculation	participation in lectures	15	
	participation in classes, laboratory classes, etc.	15	
	implementation of project tasks	8	
	working on projects, reports, etc.	10	
	participation in student-teacher sessions related to the classes	5	
	preparation for and participation in exams/tests	10	
	TOTAL:	63	
Quantitative indicators		HOURS	No. of ECTS credits
Student workload – activities that require direct teacher participation		37	1,5
Student workload – practical activities		38	1,5
Basic references	Principle of transportation engineering, Partha Chakroborty, 2003 Handbook of transportation engineering, Myer Kutz, 2001 Wright P.H., Dixon K.: Highway Engineering, John Wiley&Sons, Inc. 2004		
Supplementary references	Traffic and highway engineering, N.J. Garber, L.A. Hoel, 2009 Rozporządzenie MTiGW z dnia 2 marca 1999. Dz.U. Nr 43, poz. 430 Gaca S., Suchorzewski W., Tracz M.: Inżynieria ruchu drogowego. Teoria i praktyka, WKiŁ 2009		
Organisational unit conducting the course	Department of Construction and Road Engineering	Date of issuing the programme	
Author of the programme	Robert Ziółkowski, PhD. Eng.	15.03.2021	

L – lecture, C – classes, LC – laboratory classes, P – project, SW – specialization workshop, FW - field work, S – seminar