COURSE DESCRIPTION CARD

<table>
<tr><td colspan="10">Faculty of Civil Engineering and Environmental Sciences</td></tr>
<tr><td>Field of study</td><td colspan="6"></td><td colspan="2">Degree level and programme type</td><td></td></tr>
<tr><td>Specialization/ diploma path</td><td colspan="6"></td><td colspan="2">Study profile</td><td>Academic profile</td></tr>
<tr><td rowspan="2">Course name</td><td colspan="6" rowspan="2">Basics of traffic engineering</td><td colspan="2">Course code</td><td>IS-FCEE-00070S</td></tr>
<tr><td colspan="2">Course type</td><td>Erasmus</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>summer</td></tr>
<tr><td>15</td><td></td><td></td><td>30</td><td></td><td></td><td></td><td>No. of ECTS credits</td><td>4</td></tr>
<tr><td>Entry requirements</td><td colspan="9">-</td></tr>
<tr><td>Course objectives</td><td colspan="9">Acquainting students with road traffic characteristics, traffic conditions – Level of Service, traffic safety and speed management.</td></tr>
<tr><td>Course content</td><td colspan="9">Characteristic of road users. Traffic research, measurements and analyses. Traffic flow characteristics. Methods of traffic conditions evaluation - level of service determination. Traffic management and traffic calming – objectives and measures. Road signs and markings. Pedestrian and bicycle facilities. Road safety - problems and needs of improvement. Skills: Acquired knowledge of research and analyses of road traffic. Ability of assessment of traffic condition. Acquired knowledge of problems concerning traffic safety.</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 traffic parameters</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 plans and conducts traffic measurements</td><td colspan="2">K_B1_W07, K_B1_W18, K_B1_U12, K_B1_U18</td></tr>
<tr><td>LO3</td><td colspan="7">Student evaluates road traffic conditions</td><td colspan="2">K_B1_W08, K_B1_U13, K_B1_U18</td></tr>
<tr><td>LO4</td><td colspan="7">Student identifies traffic safety issues</td><td colspan="2">K_B1_W11, K_B1_U16</td></tr>
<tr><td>LO5</td><td colspan="7">Student can use internet sources and work in team</td><td colspan="2">K_U23, K_K03</td></tr>
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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.	30
	preparation for classes, projects,	20
	implementation of project tasks	20
	participation in student-teacher sessions related to the classes	5
	preparation for and participation in exams/tests	10
	TOTAL:	**100**

Quantitative indicators	HOURS	No. of ECTS credits
Student workload – activities that require direct teacher participation	50	2,0
Student workload – practical activities	70	2,8

Basic references	Handbook of transportation engineering, Myer Kutz, 2011 Transporetation infrastructure engineering, L.A. Hoel, N.J. Garber, 2010 Rozporządzenie MTiGW z dnia 2 marca 1999. Dz.U. Nr 43, poz. 430 Traffic and highway engineering, N.J. Garber, L.A. Hoel, 2009
Supplementary references	Wright P.H., Dixon K.: Highway Engineering, John Wiley&Sons, Inc. 2004 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.**	**25.02.2020**

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