

Card of Course

Description of Course:	
Code of course	-----
Name of course	Chosen Problems of the Light Techniques in the Transport
Version of course	2013/2014
A. Place of the course in system of study	
Level of education	basic
Degree of education	ing
Kind of education	Full-time studies or Erasmus Program
Field of study	Transport
Profile of study	General academic profile
Specialisation	profile field
Place of teaching of course	Faculty of Transport
Place of realization of course	Faculty of Transport, Department of Information Systems and Traction in Transport
Coordinator of course	Phd Ing. P. Tomczuk– WUT
B. General characteristic of the course	
Block of courses	Profile field
Group of courses	specialization
Level of course	Intermediate
Status of course	Faculty with choice limited
Language of course	english
Nominal semester	-----
Academic year	2013/2014
Preliminary requirements	electrotechnics

Limit of number of students	lack
C. Effects of education and manner of teaching	
Purpose of course	The aim of the course is to present the issues of lighting technology and the characteristics and diagnostic components of the lighting in the means of transport and transport infrastructure
Methods of evaluation	The written examination, a minimum of 10 questions covering the following two questions from each lecture
Effects of education	Look – table 1
Form of didactic studies and number of hours per week	5 Lecture – 2 hours
Contents of education	The basic idea of the individual and the size of the lighting technology. Lighting problems in transport. Photometric requirements, standards. The processes of vision and perception on the road. Stationary street lighting, roads and tunnels. Automotive lighting devices. The light source. The rules for defining color. Measuring devices in lighting technology. Photometric measurements and tests. Diagnosis of optical components-light. Development trends in the lighting of vehicles and roads.
Methods of verification of effects of education	Look – table 1
Examination	Test exam
Literature	<ol style="list-style-type: none"> 1) K. Trzeciak. Diagnosis cars. Warsaw 2009. 2) The requirements of ECE standards http://www.unece.org/trans/main/wp29/wp29regs.html 3) Kauffman JE, Christensen JF, "IES Lighting Handbook reference" Published by Illuminating Engineering Society of North America, New York, 1984. 4) Mazur, JW, Żagan W. "Car Illuminating Engineering" OWPW Warsaw 1997, 5) Materials of conferences such as lighting ISAL, PAL, LUMEN V4 6) Andrzej Wisniewski "Electric light source" OWPW 2010, 7) Agnieszka Wolska, Andrzej Pawlak "Lighting for jobs" CILP PIB 2007 8) Janusz Strzyżewski "Manual for operation and maintenance of lighting Equipment" POLAND 2010 9) Piotr Pracki "Designing interior lighting OWPW 2011
www of course	www.knest.pw.edu.pl/tomczuk > strefa studenta
D. Student's job	

Number of credits ECTS	3
Number of hours of student's job for achievement of education's effect (description):	Hours of lecture 10; study with the literature 25; Exam preparation 30; development issues in writing 20 Consultation 2, Total 87 hrs. <-> 3 points. ECTS
Number of credits ECTS on the course with direct participation of academic teacher	Hours of lecture 10; Consultation 2, Total 12 hours. <-> 1 point. ECTS
Number of credits ECTS on practical activities on the course	0 pkt. ECTS
E. Additional informations	
Notes	Subject of the rules adopted by the Department Elective of the list of additional subjects for the academic year 2012/2013.
Date of last modernization	2013-11-28 21:40:47

Table 1

General academic profile			
Course's effects		Field effects	Area effect
Knowledge			
Effect:	He has expertise in the operation of the lighting in Transport		
Code of effect:	W_01	Tr1A_W12	T1A_W02
Verification:	The written examination		
Skills			
Effect:	Able to identify and define the lighting requirements for the operation of the lighting in the transport		
Code of effect:	U_01	Tr1A_U20	T1A_U01
Verification:	The written examination		
Social competences			
Effect:	Able to set priorities and identify and resolve dilemmas related to the set by yourself or		

	other tasks		
Code of effect:	KS_01	Tr1A_K04	T1A_K02 T1P_K02
Verification:	part in the discussion in the classroom		