

# Card of Course

<b>Description of Course:</b>	
Code of course	-----
Name of course	<b>Designing of Telematics Networks in Transport</b>
Version of course	2013/2014
<b>A. Place of the course in system of study</b>	
Level of education	Intermediate
Degree of education	Engineering
Kind of education	Full-time studies
Field of study	Transport
Profile of study	General academic profile
Specialization	Main field
Place of teaching of course	Faculty of Transport
Place of realization of course	Transport Department
Coordinator of course	Andrzej Ryczer
<b>B. General characteristic of the course</b>	
Block of courses	Main field
Group of courses	General
Level of course	Intermediate
Status of course	Faculty with choice limited
Language of course	English
Nominal semester	-----
Academic year	2013/2014
Preliminary requirements	Basic knowledge of information and communication technologies and transport system engineering.
Limit of students number	10

### C. Effects of education and manner of teaching

Purpose of course	The aim of course is introduce to the most important co-operative transport telematics systems based on vehicle-to-vehicle, vehicle-to-infrastructure and infrastructure communications for the exchange of transport systems information. There will also be discussion of transport telematics services and interaction between transport telematics users and basic applications.
Methods of evaluation	Project
Effects of education	Look – table 1
Form of didactic studies and number of hours per week	Lecture – 2 hours
Contents of education	<p>This course focuses on the relationship designing approach as the basis for understanding the exchanges of information that occur between transport telematics users and motorways infrastructure. Following problems concerning fundamentals and methodology of the following networks systems and services planning will be presented: in-car infotainment, navigation &amp; location, intelligent vehicle safety, fleet management, asset monitoring an risk management, cars communications, cooperative vehicle – infrastructure systems and car warning/control systems.</p> <p>The transport telematics service domains and groups presented in this lecture serve as a framework for developing transport telematics-related concepts of operation, which in turn lead to the definition of the appropriate requirements and standards necessary to deploy specific transport telematics applications. Lecture illustrates the hierarchy of functional definitions, and the basis upon which user-oriented architecture views (known as use cases) are derived.</p>
Methods of verification of effects of education	Look – table 1
Examination	
Literature	<p>Dennis Foy, <i>Automotive Telematics</i>, Red Hat Publishing, 2002.</p> <p>Lawrence A. Klein, <i>Sensor Technologies and Data Requirements for ITS</i>, Artech House, 2001.</p> <p>ISO 14813-1:2007 <i>Intelligent transport systems – Reference model architecture(s) for the ITS sector – Part 1: ITS service domains, service groups and services.</i></p> <p><a href="http://www.tele-inc.com">www. tele-inc.com</a>; <a href="http://www.roadside telematics.com">www. roadsidetelematics.com</a></p> <p><a href="http://www.its.dot.gov">www. its.dot.gov</a>; <a href="http://www.telematicsupdate.com">www. telematicsupdate.com</a></p> <p><a href="http://www.ertico.com">www. ertico.com</a>; <a href="http://www.car-to-car.org">www.car-to-car.org</a></p>
www of course	Does not exist

<b>D. Student's job</b>	
Number of credits ECTS	3
Number of hours of student's job for achievement of education's effect (description):	10 – lecture, 2 – academic teacher consulting, 60 – project preparation.
Number of credits ECTS on the course with direct participation of academic teacher	1
Number of credits ECTS on practical activities on the course	2
<b>E. Additional information</b>	
Notes	
Date of last modernization	15 01 2014

**Table 1**

<b>General academic profile</b>			
<b>Course's effects</b>		<b>Field effects</b>	<b>Area effects</b>
<b>Knowledge</b>			
Effect:	Has knowledge of mathematics, physics, and other areas concerning of major, useful for wording and resolving simple problems of major range.		
Code of effect:		Tr1A_W01	T1A_W01
Verification:	Project presentation, discussion.		
Effect:	Has basic knowledge about recent and relevant requirements relating to designing simple transport telematics services.		
Code of effect:		Tr1A_W06	T1A_W02

Verification:	Project presentation, discussion.		
Effect:	Has basic knowledge in the range of information exchanging that occur between transport telematics users and motorways infrastructure and the range of problems concerning fundamentals and methodology of the major range.		
Code of effect:		Tr1A_W07	T1A_W02
Verification:	Project presentation, discussion.		
<b>Skills</b>			
Effect:	Has the ability to demonstrate the process of transport telematics project management.		
Code of effect:		Tr1A_U01	T1A_U01
Verification:	Project presentation, discussion.		
Effect:	Acquire skills in the transport telematics service domains and groups and standards necessary to deploy specific transport telematics applications.		
Code of effect:		Tr1A_U17	T1A_U13
Verification:	Project presentation, discussion.		
Effect:	Skill in the hierarchy of functional transport telematics systems and services definitions, and the basis of user-oriented architecture views.		
Code of effect:		Tr1A_U20	T1A_U14
Verification:	Project presentation, discussion.		
<b>Social competences</b>			
Effect:	Are conscious of significant impact transport telematics services on: safer use the capacity of the available road network, cleaner mobility and better response to incidents and hazards. Are conscious of more efficient transport telematics systems which offer increased information about vehicles, their location and the road conditions.		
Code of effect:		Tr1A_K02	T1A_K02
Verification:	Lectures discussion.		