

Course description

Tempus project EcoBRU

Course name
1 Motor transport, the impact on the environment

Lecturer	Educational institution
Course Director: Shatalova E.E. Other team members: Galkina G.A., Myronyuk V.P., Meshcheryakov S.V.	RSUCE, Chair of the Transportation and Road Traffic

Deficit definition
Opens transport infrastructure impact on the environment

Required space in the training	Course level	Course type
Advanced training		MOODLE

Target group	Duration	Languages
college teachers	60	Russian

Conditions	Other requirements (if applicable)
Conditions: Internet	

Ladder Points (1 un.=30 h)	Total hours	Class work	Independent work (h)
2	60	30	30

Topicality for EcoBRU**
Giving knowledge for understanding and assessing the impact of motor transport and transport infrastructure on the environment.

Themes / Content	MOODLE	Hours and tasks for independent work
1. The impact of motor transport on the environment - positive and negative aspects.	2	2
2. Environmental regulation and classification of pollutant emissions from motor vehicles.	2	2

3. The impact of pollutant emissions on the human body.	2	2
4. Factors influencing the amount of pollutant emissions from motor vehicles. Modeling of pollutant emissions from motor vehicles.	4	4
5. Wastes resulting from operation of the vehicle	2	2
6. The recycling and reuse of resources	4	4
7. Noise, vibration from motor vehicles and their impact on the human body	4	4
8. Methods for predicting noise on roads	2	2
9. Calculation of noise from motor vehicles	4	4
10. Investigation of the characteristics of traffic flows	2	2
11. The calculation of pollutant emissions from motor vehicles into the air with the help of the program «Highway – City»	2	2
TOTAL	60	

Forms of control and assessment			
Control form	Percentage ratio	Dates	Criteria of assessment
Test`s question (MOODLE)	30	within the framework of learning course	more than 59 %
Lecture on-line (MOODLE)	20		more than 59 %
Credit	50		«Credit» - student shows good knowledge of educational material on the topics of the course. While logical and consistent presented material, reveals the meaning of the question, gives the right answers to additional questions. «Fail» - listener is difficult respond to questions raised, give partial answers to the questions from the basic literature recommended for the course.

Terms and conditions of access to monitoring and assessment of knowledge (exam)
Test`s question (MOODLE) & Lecture on-line (MOODLE) more than 59

Document type certifying the successful course visiting (Certificate?)
Certificate of professional development

Organizational guidelines
Place: RSUCE
The recommended number of participants: no regulate

Literature and educational materials				
Author	Year of publishing	Title	Pages number	Place of publication, publisher or an online link
Basic literature				
Ю. В. Трофименко, Г.И. Евгеньев.	2006	Экология: Транспортное сооружение и окружающая среда: учеб. пособие для студ. высш. учеб. заведений	394	М.: Издательский центр «Академия»
М. В. Графкина	2009	Экология и экологическая безопасность автомобиля: учебник	320	М.: Форум
В. И.Жуков	2012	Оценка воздействия транспортно-дорожного комплекса на окружающую среду: учеб. пособие		[Электронный ресурс] Красноярск : Сиб. федер. ун-т
Additional resources				
И. С Туровский	2014	Охрана труда на автомобильном транспорте	240	М.: ИД ФОРУМ: НИЦ ИНФРА-М