



## COURSE DATASHEET

<b>Semester:</b>	2014/15/2
<b>Course:</b>	Environmental Protection Technologies II.
<b>Code:</b>	VEMKKVT212K
<b>Responsible department:</b>	Department of Environmental Engineering
<b>Department code:</b>	MKKV
<b>Responsible instructor:</b>	dr. József Kovács

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### Course objectives:

The object of this lecture to summarise the methods developed for decrease the environmental impact of two important industrial brunch (traffic and agriculture) in evaluation, function and development of them.

### Course content:

1. Definition and instrumental system of traffic. Development trends 2. Public traffic: vehicle and motor types. Alternatives for decreasing the pollutants emitted by internal ignition motors. 3. Waste material originated from public traffic. 4. Railway traffic. Development of internal combustion engined rail-cars. Railway intrumentations. 5. Instrumental system of air and water transport. Environmental effects. 6. Role of logistic knowledge in material transport and transit transports 7. Environmentally friend petrol stations and maintenance workshops. 8. Agriculture politics of EU States and Hungary. Internal and international levels of agrochemicals. 9. Chemical componds used in agricultural industry. Fertilizers 10. Heavy metal pollutions int he soils. Aciditation of the soil. 11. Treatment and reuse of waste materials origin from plant production, animal husbandry and food industry. 12. Biological equilibrium and possibility in the future 13. Problems origin from animal preventions. Animal rights 14. Environmental effects origine from processing industry 15. Consultation. Written examination

### Requirements, evaluation and grading:

According to the requirements of fulfillment.

### Required and recommended readings:

H. Grohe: Otto- und Dieselmotoren, Spiegel, Verlag Bucheverlag, 1992 T. G. Carpenter: The Environmental Impact of Railways, John Wiley & Sons, 1994, ISBN: 0-471-94828-4 Olivier Zali, Dietrich Schwela: Urban Traffic Pollution, 1998, ISBN : 0-203-02912-7 Route M., Andersson S.: Environmental Goals for Sustainable Transport in Europe. (www.viron.se) Környezetvédelmi Lexikon, Szerkesztő: Láng István, Akadémiai Kiadó, 2002 Pataki György - Takács-Sánta András: Természet és gazdaság, Typotex Elektronikus Kiadó, 2004 Bándi Gyula: Környezetvédelmi kézikönyv, KJK-KERSZÖV Kft., 2002 Bozsik András - Hartman Mátyás - Percze Attila: Környezetvédelem - Mit tehet a mezőgazda?, Szaktudás Kiadóház, 2001