



COURSE DATASHEET

Semester:	2014/15/2
Course:	Environmental Chemistry
Code:	VEMKKKB212K
Responsible department:	Department of General and Inorganic Chemistry
Department code:	MKAK
Responsible instructor:	dr. Ottó Horváth

Course objectives:

To show the evolution of nature, the chemical evolution, the chemical processes occurring in three spheres of environment, the anthropogenic disturbance of natural processes.

Course content:

1. General characterization of the chemical processes in the nature. 2. Evolution of the nature. 3. Chemistry of the lithosphere. 4. Chemistry of soil. 5. Structure and properties of water, chemistry of aqueous solutions. 6. The hydrosphere. 7. The structure, composition, and properties of atmosphere. 8. Chemical reactions in the atmosphere. 9. Anthropogenic pollutants in the nature. 10. General characterization of environmental chemistry of elements, biogeochemical cycles. 11. Environmental chemistry of biologically important elements (C, O). 12. Environmental chemistry of biologically important elements (N, S, P). 13. Environmental chemistry of some metals. 14. Transport processes of anthropogenic pollutants. 15. Chemical and biochemical transformation of pollutants.

Requirements, evaluation and grading:

The condition of the pass mark is a satisfactory level of the examination paper.

Required and recommended readings:

Papp S., R. Kümmel: Környezeti kémia, Tankönyvkiadó, Budapest, 1992. Papp S. : Bevezetés a környezeti kémiába, VEK, Veszprém, 1999. Papp S.: Biogeokémia –körfolyamatok a természetben, VEK, Veszprém, 2002. S. E. Manahan: Fundamentals of Environmental Chemistry, Lewis Publishers, Boca Raton, 2001. D. Merritts, A. deWet, K. Mening: Environmental Geology, W. H. Freeman and Co., New York, 1998.