UNIVERSITY OF PANNONIA

COURSE DATASHEET

Semester:	2015/16/1
Course:	Introduction to the Environmental Science
Code:	VEMKFTB112A
Responsible department:	Department of Earth and Environmental Sciences
Department code:	MKFT
Responsible instructor:	Dr. Ágnes Molnár

Course objectives:

Understanding the complexity of interrelationship between environment and human activity. Use of knowledge of biology, chemistry and physics in an environmental context and the application of this knowledge to solving specific environmental problems. Ability to study and interpret environmental processes that take place on various spatial scales.

Course content:

1. Development of the Earth surface environments and the life. 2. Development of the biosphere from protozoan to hominids. 3. Global environmental changes during the Earth's history. Mass extinction events. 4. The atmospheric environment. Chemistry of the stratosphere and the troposphere. 5. Antropogenic effects on the climate change. 6. The continental environment. Chemical composition of the Earth's crust. Weathering processes. 7. The soil as a self-controlling system. 8. The continental biosphere. 9. Surface and subsurface waters. Antropogenic effects on the continental environments. 10. Chemical oceanography. 11. Life in the oceans. The oceans and the climate. 12. Geosphere-biosphere interactions – the global biogeochemical cycles. 13. The water cycle. 14. The oxygen and carbon cycles. 15. The nitrogen, phosphorous and sulphur cycles.

Requirements, evaluation and grading:

Participation is mandatory. Test exam will be written during the examination period. Students with successful test will be graded based on the result of the written exam.

Required and recommended readings:

Jacobson, M. C. és társai (2000): Earth System Science. Academic Press, San Diego; Mészáros E. (2001): A környezettudomány alapjai. Akadémiai Kiadó, Budapest; Mészáros E. (2001): A Föld rövid története. Vince Kiadó, Budapest.