



УНИВЕРЗИТЕТ У БАЊОЈ ЛУЦИ  
UNIVERSITY OF BANJA LUKA  
ПРИРОДНО-МАТЕМАТИЧКИ ФАКУЛТЕТ  
FACULTY OF NATURAL SCIENCES AND MATHEMATICS



CHEMISTRY DEPARTMENT

FIRST CYCLE OF STUDY

Chemistry/Chemistry Education

Course name	<b>Environmental Chemistry</b>			
Course code	Course status	Semester	Hours of instruction	ECTS
1C16HOS409	required	III	3+0	5
Teacher(s)	<b>Prof. Branimir Jovančević PhD</b>			

Prerequisite course(s)	Entry requirements
General Chemistry and Inorganic Chemistry	Attended courses

<b>Course goals</b>
Introduction to basic chemical processes in the atmosphere, hydrosphere, lithosphere and biosphere, as a segment of the environment, is unavoidable in the study of chemistry and related sciences. The fact that the ecosystem is endangered both locally and globally today justifies the study of chemical transformations of pollutants in the environment, which is one of the most important goals of the study of chemistry. As a scientific discipline, environmental chemistry, today occupies a leading position in the world.

<b>Learning outcomes</b>
With the mastered course in Environmental Chemistry, the student acquires knowledge that is the basis for working in laboratories of a very wide ecochemical spectrum. This is of great importance if we keep in mind that the region of Southeast Europe is particularly sensitive when it comes to the quality of the environment.

<b>Course content</b>
Hydrosphere, lithosphere, atmosphere and biosphere as segments of the environment. Land creation and composition. Water as a dispersion medium. Origin of the Earth's atmosphere, structure of the atmospheric envelope, specifics of atmospheric chemistry, aerosol. Inorganic and organic pollutants in soil and water-identification, their fate and remediation. Inorganic and organic pollutants in the atmosphere - smog, the "greenhouse" effect, "acid rain". Tropospheric air.

<b>Teaching methods</b>
Lectures.

<b>Books and other learning materials</b>
1. P. Pfindt: <b>Environmental Chemistry</b> - part 1 (in Serbian), Textbook Publishing Co, Belgrade, 2009. 2. D. Veselinović, I. Gržetić, Š. Djarmati, D. Marković: <b>Physicochemical foundations of environmental protection - book 1: Conditions and processes in the environment</b> (in Serbian), Department of Physical Chemistry, University of Belgrade, 2005. 3. D. Marković, Š. Djarmati, I. Gržetić, D. Veselinović: <b>Physicochemical foundations of environmental protection - book 2: Sources of pollution, consequences and protection</b> (in Serbian), University of Belgrade, 2005.

<b>Course activities and grading method</b>			
Activity	10	Tests	30
		Final exam	60

<b>Additional course notes</b>
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Name of the teacher who prepared this form	Branimir Jovančević
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