



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	Inorganic Chemistry			
Course code	Course status	Semester	Hours of instruction	ECTS
1C16HOS392	required	II	3+3	8
Teacher(s)	Asst. Prof. Zvezdana Sandić, PhD			

Prerequisite course(s)	Entry requirements
General Chemistry	Passed exam

Course goals
The aim of this course is to understand the periodic changes of the chemical and physical properties of the elements with respect to the structure and position of elements in the Periodic Table.

Learning outcomes
The students are able to explain the general chemical and physical properties and reactivity of elements belonging to the main groups of the Periodic Table; to describe the basic laboratory and industrial methods for obtaining selected chemical elements and their application; to list the basic classes of compounds, explain their structure and chemical properties and write the names of inorganic compounds in accordance to the nomenclature.

Course content
From alchemy to the Periodic Table of the Elements. Formation of the chemical elements.
Periodic changes in the properties of chemical elements. s - p - d - f elements.
Basic classes of chemical compounds - oxides, hydroxides, salts.
Hydrogen. Hydrides. Group 18 elements (noble gases).
Group 1 element (alkali metals). Group 2 elements (alkaline earth metals).
Group 17 elements (halogen elements). Group 16 elements (halogenic elements).
Group 15 elements (nitrogen group). Group 14 elements (carbon group).
Group 13 elements (boron group).
General properties of transition elements.

Teaching methods
Lectures and experimental exercises

Books and other learning materials
D. Poleti: **General Chemistry**, Part II, Chemistry of Elements, TMF, Belgrade, 2000.
I. Filipović, S. Lipanović: **General and Inorganic Chemistry**, Parts I and II, Školska knjiga, Zagreb 1995.
Z. Sandić: lecture presentations for Inorganic Chemistry available on Google Classroom.
Exercises: Internal laboratory practicum.

Course activities and grading method
The activity and the colloquium refer to the exercises and are a condition for taking the final exam. Two tests per semester - based on the lecture materials. The results are included in the final grade only if they exceed 50% of the predicted points for a given form of test during the semester.

Activity	5	Tests	30
Exit colloquium	5	Final exam	60

Additional course notes
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Name of the teacher who prepared this form | Zvezdana Sandić