Course Unit Descriptor Study Programme: Chemistry, Biochemistry

Course Unit Title: Inorganic Chemistry I

Course Unit Code: Z-101

Name of Lecturer(s): Full professor Ljiljana Vojinović Ješić, Associate professor Mirjana Radanović

Type and Level of Studies: Bachelor Academic Studies

Course Status (compulsory/elective): Compulsory

Semester (winter/summer): Summer

Language of instruction: English

Mode of course unit delivery (face-to-face/distance learning): Face-to-face

Number of ECTS Allocated: 8

Prerequisites: None

Learning objectives

Acquisition of basic knowledge about synthesis, characteristic

Acquisition of basic knowledge about synthesis, characteristics and application of elements and their inorganic compounds in contemporary environment.

Learning outcomes

- demonstrate basic knowledge about prevalence and physic-chemical properties of selected chemical elements and their compounds;
- demonstrate basic knowledge about laboratory and industrial processes for obtaining selected chemical elements and their compounds;
- demonstrate basic knowledge about the application of selected chemical elements and their compounds, to perform experiments independently and formulate conclusions about chemical behaviour of elements and their inorganic compounds based on experimental results.

Syllabus

Theoretical instruction

Introduction to the chemistry of the elements. Chemical and physico-chemical properties of metals, non-metals and semimetals. Basic classes of inorganic compounds and nomenclature. Types of reactions in inorganic chemistry. Occurrence, extraction, physical and chemical properties and application of s-, p-, d- and f-elements and their compounds.

Practical instruction

Reactions of selected s-, p- and d-elements and their compounds.

Required Reading:

1. Weekly teaching load

Weekly Contact Hours: 105	Lectures: 45	Practical work: 45+15
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Teaching Methods:

Lectures and laboratory work

Knowledge Assessment (maximum of 100 points): 100

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Pre-exam obligations	points	Final exam	points	
Activity	5	Test I and II	30	
Lab exercises	5	Written exam	60	