

SYLLABUS

1. Course title:

INORGANIC CHEMISTRY

2. Code:**3. Cycle of study:**

1

4. ECTS credits:

7

5. Type of course: Mandatory Elective**6. Prerequisites:****7. Class restrictions:****8. Duration / semester:** 1 2**9. Weekly contact hours:**

9.1. Lectures:

3

9.2. Seminars:

1

9.3. Laboratory/ Practice classes:

3

10. Faculty:

Faculty of Pharmacy

11. Department/ study program:

Pharmacy (integrated first and second cycle of study)

12. Lecturer:

dr.sc. Aida Crnkić, full professor

13. Lecturer's e-mail:

aida.crnkic@untz.ba

14. Web site:

www.frmf.untz.ba

15. Course aims:

The knowledge gained through two modules is the basis for studying other areas of chemistry. Studying the properties of elements and their compounds according to the systematization of elements into groups of the periodic system. The level of knowledge required of students is adapted to the capabilities of first-year students. Based on practical work in the laboratory, students are enabled to give lectures and own experimental observations. The main goal of this module is to equip the student to study the properties of chemical elements.

16. Learning outcomes:

After successfully passing the course, the student should understand the connection between the properties of chemical elements and their compounds and the position of the elements in the Periodic Table, as well as be able to apply the acquired knowledge in any other scientific field in the field of chemistry.

17. Course content:

Introduction to Inorganic Chemistry. Basic knowledge of chemistry. Thermodynamics of chemical reactions; Chemical kinetics. Periodic table of elements and structure of atoms; Periodic table of elements and electronic configuration of atoms of elements; Rules for filling multi-electron atoms; Types of chemical bonds and element position in the Periodic Table. Nomenclature of inorganic compounds; Inorganic compounds in the European Pharmacopoeia; Chemistry of anions; Coordination chemistry Solvents; solutions of acids, bases, salts, and buffers. Periodic table and elements necessary for life (Bioelements); Types of chemical bonds and element position in the Periodic Table; Solvents; solutions of acids, bases, salts, and buffers Chemistry of anions; Coordination chemistry, Nomenclature of inorganic compounds; Inorganic compounds in the European Pharmacopoeia;

18. Learning methods:

Lectures and exercises.

19. Assessment methods:

Lecture (L): attendance 97 - 100 %: 3 points; -II- 93 - 96 % : 2 points -II- 0 - 92 % : 1 point

Exercises (E) : attendance 100 %: 3 points -II- (93 - 99 %) : 2 points - II - (87 - 92 %) : 1 point

During the semester, students will take two colloquiums, after the 7th and 15th week. These colloquiums include testing of knowledge and skills in practical exercises. During the semester, students will make a seminar paper on the subject that includes Module 2 of Inorganic Chemistry, according to the professor's assignment.

EXAM: During the semester, students take two tests (two partial exams), which include the material according to Module 1 (the 1st partial) and the material according to Module 2 (the 2nd partial). The test for passing the 1st partial (Module 1) carries a maximum of 20 (10 +10) points (20 TEST-QUESTIONS x 0.5 POINTS = 10 points/ + 2 assignments carry 10 POINTS/), and a minimum of 10 (5+5) points. The test for passing the 2nd partial (Module 2) carries a maximum of 20 points (10 QUESTIONS x 2.0 POINTS = 20 points), and a minimum of 10 points. The final exam is taken by students who have collected at least the minimum number of points according to all previous criteria. It can be in written and oral form. The number of questions per module depends on the points obtained in the partial exams. A grade of 6-10 is equivalent to the total number of points, accomplished through the pre-exam and exam activities. The cumulative exam is taken by students who did not fully or partially fulfill the prescribed obligations during the semester. It is taken in writing and orally. The written part of the exam, depending on the remaining obligations, may consist of individual parts or their sum, as follows: knowledge check of the material covered in the first colloquium. Knowledge evaluation covered by the second colloquium. Knowledge evaluation covered by the first partial exam (Module 1). Knowledge evaluation covered by the second partial exam (Module 2). The oral part of the exam will be taken by students who have reached the minimum number of points on the written part of the exam, which covers the material of Module 1 and Module 2. The number of questions per module depends on the scores obtained on the partial written exams.

20. Assessment components:

< 55 points = 5 (five)
55-64 points = 6 (six)
65-74 points = 7 (seven)
75-84 points = 8 (eight)
85-94 points = 9 (nine)
95-100 points = 10 (ten)

21. Required reading list:

Filipović I, Lipanović: "Opća i anorganska kemija", 1995. Mazalović M., Odabrana poglavlja hemije za studente medicine, farmacije, Mazalović M., Kesić. Practical book in inorganic chemistry for pharmacy students (internal use), Tuzla 2007

22. Web sources:

E. Velagic - Habul, M. Mazalović, Praktikum iz Opće hemije za studente univerzitetu u BiH, PMF Sarajevo, Phare/Tempus JEP 12 440 - 97, 2000.

23. Applicable starting from the academic year:

2018/2019.

24. Adopted in the Faculty/ Academy session:

17.11.2025.