



Course ID: HOA105	Course name: STRUCTURAL INORGANIC CHEMISTRY		
Cycle: SECOND	Year: FIRST	Semester: I	ECTS credits:6
Course status: ELECTIVE	Total course hours: 60 Lectures: 45 Laboratory: 15		
Teaching participants:	Teachers and associates with expertise in the field of Inorganic Chemistry		
Prerequisite for enrollment:	-		
Course aims:	Acquiring knowledge of crystal structures and symmetries. Comparative study of structures of metals and alloys, ionic and covalent crystals. Correlation of properties with the structure of inorganic compounds.		
Thematic course units:	<ol style="list-style-type: none">1. Description of crystal structure.2. Symmetry.3. Structure of metals and alloys.4. Ionic crystal structure.5. Structure of covalent crystals.6. Methods of structural analysis and structural support.7. Correlation of structure and properties.8. Significance of structure in the application of inorganic compounds.		
Learning outcomes:	After the course the student will be able to: <ul style="list-style-type: none">– determine the symmetry elements of the molecule and the point group– explain the crystal and molecular structure of a substance– explain the dense packaging and selected reference crystal structures– correlate structure with physical properties of the substance– correlate structure with electrical, thermal and magnetic properties of the substance– list and explain methods of structural analysis and structural support		

Teaching methodology:	Auditory lectures, laboratory exercises
Assessment methods and grading system¹:	Grading criteria
	Criteria Maximal score Required score
	1. Class attendance 5 3
	2. Class activities 5 2
	3. Midterms 40 22
	4. Final exam 40 22
	Total 100 55
	Scores and grading
	Score Grade (BiH) Grade (ECTS)
	< 55 5 F, FX
	55–64 6 E
	65–74 7 D
	75–84 8 C
85–94 9 B	
95–100 10 A	
Literature²:	<p>Mandatory literature:</p> <ol style="list-style-type: none"> 1. Atkins, P., & Overton, T. (2010). Shriver and Atkins' inorganic chemistry. Oxford University Press, USA. 2. Grdenić D. (2005). Molekule i kristali. Školska knjiga Zagreb. 3. Wells, A. F. (2012). Structural inorganic chemistry. Oxford university press. <p>Supplementary literature:</p> <ol style="list-style-type: none"> 1. Müller, U. (1993). Inorganic structural chemistry (No. 04; QD151. 2, M8.). New York. 2. Huheey, J. E., Keiter, E. A., Keiter, R. L., & Medhi, O. K. (2006). Inorganic chemistry: principles of structure and reactivity. Pearson Education India. 3. Scott, R. A., & Lukehart, C. M. (Eds.). (2013). Applications of physical methods to inorganic and bioinorganic chemistry. John Wiley & Sons.

¹The grading structure for each subject is determined by the Council of the organizational unit before the beginning of the academic year in which the subject is taught as per Article 64, paragraph 6 of the Law on Higher Education of Sarajevo Canton

²The Senate of the higher education institution, as an institution, or the Council of the organizational unit of the higher education institution, as a public institution, determines by a special decision, which is published on its website before the beginning of the academic year obligatory, mandatory and recommended textbooks and manuals, as well as other recommended literature based on which exams are prepared and taken as per Article 56, paragraph 3 of the Law on Higher Education of the Sarajevo Canton