Course ID: HDOA25	**Course name:** SYNTHESIS AND IDENTIFICATION OF INORGANIC COMPOUNDS		
Cycle: THIRD	**Year: FIRST**	**Semester: I**	**ECTS credits: 15**
Course status: ELECTIVE		**Total course hours: 90** Lectures: 45 Laboratory: 45	
Teaching participants:	**Teachers and associates with expertise in the field to which the subject belongs**		
Prerequisite for enrollment:	-		
Course aims:	Introduction to advanced principles of inorganic synthesis and instrumental methods of characterization		
Thematic course units:	1. Application of modern techniques in the preparation of inorganic compounds (with special emphasis on the synthesis of complex compounds and polyoxometallates). 2. Reactions in the solid state, in solution (aqueous and non-aqueous medium). - Hydrothermal synthesis; - Electrolytic oxidation 5. Methods of isolation of inorganic compounds. 6. Characterization methods. 7. Instrumental methods: IR, Raman, UV, NMR, EPR, magnetochemical measurements, diffraction, determination of stability constants. 8. Application of inorganic compounds: - Complex compounds as biological and industrial catalysts; - Clusters and polyoxometalates in catalysis.		

Assessment methods and grading system[1]:

Grading criteria			
	Criteria	Maximal score	Required score
1.	Seminar papers	1 × 30	16,5
2.	Midterms	2 × 15	16,5
3.	Final exam	40	22

[1] The 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

	Total 100 55 Scores and grading Score / Grade (B&H) / 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
Literature[2]:	Supplementary literature: 1. S. F. A. Kettle, Physical Inorganic Chemistry, Oxford University Press, Oxford, 1998. 2. G. S. Girolami, T. B. Rauchfuss, R. J. Angelici, Synthesis and Technique in Inorganic Chemistry, University Science Books, Sausalito, 1999. 3. 3. G. Wilkinson, R. D. Gillard, J. A. McCleverty, Comprehensive Coordination Chemistry, Pergamon: New York 1987. 4. Original scientific papers

[2] The 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