



<b>Course ID:</b> HOA361	<b>Course name: APPLIED INORGANIC CHEMISTRY</b>		
<b>Cycle: FIRST</b>	<b>Year: THIRD</b>	<b>Semester: VI</b>	<b>ECTS credits: 2</b>
<b>Course status: MANDATORY</b>		<b>Total course hours: 30</b> Lectures: 30	
<b>Teaching participants:</b>	<b>Teachers and associates with expertise in the field to which the subject belongs</b>		
<b>Prerequisite for enrollment:</b>	-		
<b>Course aims:</b>	Introducing to classical and modern inorganic materials and their use in different spheres of life.		
<b>Thematic course units:</b>	<ol style="list-style-type: none"><li>1. Inorganic materials, general properties.</li><li>2. Silicate materials.</li><li>3. Carbon nanofibers.</li><li>4. Inorganic polymers.</li><li>5. Complex compounds. Coordination bond theories.</li><li>6. Inert and labile complexes. Spectrochemical series.</li><li>7. Practical importance of metal complexes in engineering, catalysis and medicine.</li></ol>		
<b>Learning outcomes:</b>	<p><i>Knowledge:</i> Indicate general properties of inorganic materials. Describe the practical significance of metal complexes in engineering, catalysis and medicine.</p> <p><i>Skills:</i> Recognize inorganic materials. Predict and interpret structures of complex compounds.</p> <p><i>Competences:</i> Critically evaluate the importance of the application of classical and modern inorganic materials in different areas of life. Argue the choice of inorganic material in different areas of life.</p>		
<b>Teaching methodology:</b>	Method of oral presentation, method of conversation.		

<b>Assessment methods and grading system<sup>1</sup>:</b>	<b>Grading criteria</b>		
	Criteria	Maximal score	Required score
	1. Class attendance	5	2
	2. Class activities	5	3
	3. Midterms	45	25
	4. Final exam	45	25
	Total	100	55
	<b>Scores and grading</b>		
	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	
<b>Literature<sup>2</sup>:</b>	<p><b>Mandatory literature:</b></p> <ol style="list-style-type: none"> <li>1. Kahrović E. Uvod u eksperimentalnu anorgansku hemiju. Sarajevo: Prirodno-matematički fakultet; 2011.</li> <li>2. Filipović I, Lipanović S. Opća i anorganska kemija. Zagreb: Školska knjiga; 1995.</li> </ol> <p><b>Supplementary literature:</b></p> <ol style="list-style-type: none"> <li>1. Cotton A, Wilkinson G. Advanced Inorganic Chemistry. 6th ed. New York, Chichester, Weinheim, Brisbane, Singapore, Toronto: John Wiley and Sons; 1999.</li> <li>2. Edelstein AS, Cammarata RC, editors. Nanomaterials: Synthesis, Properties and Applications. Bristol and Philadelphia: Institute of Physics Publishing; 1996</li> </ol>		

<sup>1</sup> 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

<sup>2</sup> 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