
		UNIVERSITY OF EAST SARAJEVO Faculty of Technology Zvornik				
		Study programme: Chemical Engineering and Technology				
		Cycle I	Year I			
Course title		INORGANIC CHEMISTRY				
Department		Department for Chemistry– Faculty of Technology Zvornik				
Course code		Course status		Semester	ECTS	
04-1-007-2		Compulsory		II	7	
Teacher		Aleksandar Došić, PhD, Associate Professor				
Teaching assistant		Milomirka Obrenović, MSc, Senior Teaching Assistant				
Number of hours/ teaching workload (per week)			Individual student workload (in hours per semester)			Student workload coefficient S ₀
Lectures	Auditory exercises	Laboratory exercises	Lectures	Auditory exercises	Laboratory exercises	S ₀
3	1	2	60	20	40	1.33
3*15+1*15+2*15=90 hours			(3*15*1.33+1*15*1.33+2*15*1.33)=120 hours			
Total course workload 90 + 120=210 hours per semester						
Learning outcomes		After finishing the course, students will be able to: <ol style="list-style-type: none"> 1. demonstrate basic knowledge of the distribution and physical and chemical properties of selected chemical elements and their compounds, 2. demonstrate basic knowledge of laboratory and industrial procedures for obtaining selected chemical elements and their compounds, 3. demonstrate basic knowledge about the use of selected chemical elements and their compounds, 4. perform experiments independently and, based on experimental results, formulate conclusions about the chemical behavior of elements and their inorganic compounds, 5. formulate accurate conclusions based on experimental results, 6. logically connect theoretical, experimental and computational knowledge, efficient learning, teamwork, use of literature, 7. safely handle chemicals and basic laboratory equipment. 				
Prerequisites		None.				
Teaching methods		Lectures, auditory and laboratory exercises, mid-term tests (colloquia).				
Syllabus outline per week		<ol style="list-style-type: none"> 1. Chemistry of elements and their compounds. Classification of inorganic compounds - properties and division. 2. Complex compounds. Nomenclature of inorganic compounds. 3. Types of crystal structures. Lattice energy of ionic crystals. Ionic and covalent radii. Classification of solvents 4. Hydrogen. Properties and preparation. Compounds. Classification of hydrides. 5. Elements of group 18 – noble gases. General properties, preparation and compounds. 6. Elements of group 17 – halogen elements. General properties, preparation and compounds. 7. Elements of group 16 – chalcogens. General properties, preparation and compounds. 8. Elements of group 15 - nitrogen group. General properties, preparation and compounds. Nitrides. 9. Elements of group 14 - carbon group. General properties, preparation and compounds. Carbides. 10. Elements of group 13 - boron group. General properties, preparation and compounds. 11. Elements of groups 1 and 2 – alkali and alkaline earth metals. General properties, preparation and compounds. 12. Transition metals. General properties of elements from III-b to VII-b group. 13. Triad of iron. Platinum metals. General properties. 14. Copper group elements. Zinc group elements. General properties, preparation and compounds. 15. Inner-transition metals: f-elements. General properties. <p>Mid-term tests are taken after the 8th week and the 15th week. Semester verification is required after the 15th week.</p>				

Obligatory reading				
Author	Title, publisher	Year	Pages	
Poleti, D.	Opšta hemija II deo-hemija elemenata,	2011	1-280	
Glgorić, M., Tadić, G.	Zbirka zadataka iz opšte hemije, Tehnološki fakultet, Zvornik	2004	237-426	
Bogunović, Lj., Poleti D., Popović, M., Stević, S.	Praktikum opšte hemije II deo, Tehnološko-metalurški fakultet, Beograd	1997	1-90	
Additional reading				
Author	Title, publisher	Year	Pages	
Filipović, I., Lipanović, S.	Opća i anorganska kemija II dio-kemijski elementi i njihovi spojevi, Školska knjiga, Zagreb	1989	618-1145	
Popović, M., Vasović, D., Bogunović, Lj., Poleti, D. Čuković, O.	Zbirka zadataka iz opšte hemije, Tehnološko-metalurški fakultet, Beograd	2007	131-301	
Obligations, assessment methods and grading system	Type of student evaluation		Grade points	Percentage
	Pre-exam obligations			
		Attendance	6	6 %
		Laboratory exercises	20	20 %
		Mid-term test - theory	24	24 %
		Mid-term test - computational	20	20 %
	Final examination			
		Final examination (oral)	30	30 %
Total		100	100 %	
Web page	www.tfzv.ues.rs.ba			
Date	2023			