

Course ID: HFH362	Course name: I	rse name: ELECTROCHEMISTRY		
Cycle: FIRST	Year: THIRD	Semester: VI	ECTS credits: 6	
Course status: MAN	DATORY	Total course hou Lectures: 30 Auditory: 15 Laboratory: 45	ırs: 90	
Teaching participa	nte: I	Teachers and associates with expertise in the field to which the subject belongs		
Prerequisite for enrollment:	-			
Course aims:	chemistry d In this cours which are	ctives of the course are contained in the fact that physical deals with the physical principles on which chemistry is based. urse, students will be introduced to the laws of electrochemistry, based on the fact that there is an interaction and defined ce between matter and current.		
Thematic course ur	1. Intro electrol 2. Cond 3. Form 4. Equil 5. Kolra 6. Trans 7. Electro 8. Appli 9. Electro 10. Dep condition 11. Elect determi 12. Elect 13. Stan 14. Cher	dependence between matter and current.1. Introduction, conduction of electric current, non-electrolytes and electrolytes.2. Conductivity of electrolytic solutions. Conductometric titrations.3. Formation of ions in solution. Electrolyte theories.4. Equilibrium properties of aqueous electrolyte solutions.5. Kolraush's laws.6. Transference numbers and methods of their determination.7. Electrolysis, laws of electrolysis, coulometers.8. Application of electrolysis in practice.9. Electrochemical cells, thermodynamics of electrochemical cells, electromotive force.10. Dependence of the electromotive force of the cell on the conditions-concentration and temperature.11. Electrodes, electrode potential, pH scale, potentiometric determinations.12. Electrode polarization, overvoltage, diffusion layer, polarography.13. Standard cells, concentration cells, redox cells.14. Chemical power sources - batteries, combustible elements. 15. Surfaces and their properties, surface tension, capillarity,		
Learning outcomes	Knowledge electrocher Skills: Stud as a basis f Competend	Pledge: Acquired knowledge of electrochemistry and rochemical laws. E Students will be able to use exact electrochemical methods asis for understanding the essence of chemical processes. Detences: Application of electrochemical methods in other ches of chemistry.		
Teaching methodol	ogy: Lectures (or Auditory ex	ral presentation and intera ercises	ctive classes)	

Form SP2

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	Laboratory exercises				
	Grading criteria				
	Criteria	Maximal score	Required score		
	1. Class attendance	5	3		
	2. Class activities	15	8		
	3. Midterms	2 × 20	2×11		
	4. Final exam	40	22		
	Total	100	55		
Assessment methods	Scores and grading				
and grading system ¹ :	Score	Grade	Grade		
		(BiH)	(ECTS)		
	< 55	5	F, FX		
	55-64	6	Е		
	65-74	7	D		
	75-84	8	С		
	85-94	9	В		
	95-100	10	А		
	Mandatory literature:				
	1. Đorđević S., Dražić V., Fizička hemija, Tehnološko-metalurški fakultet,				
	Beograd				
Literature ² :	2. Ovcin D. i dr., Zbirka zadataka iz fizičke hemije, TMF, Beograd				
	3. Korać F., Gutić S., Ostojić J., Herenda S., Gojak-Salimović S.: Praktikum iz				
	elektrohemije, Sarajevo 2019.				
	Supplementary literature:				
	1. P. W. Atkins, Physical Chemistry, Oxford University Press				
	1. r. w. Atkins, riysical chemistry, Oxford University Press				

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