Course ID: HFHI07	**Course name: ELECTRODE KINETICS OF ENZYMATIC REACTIONS**		
Cycle: SECOND	**Year: FIRST**	**Semester: I**	**ECTS credits: 4**
Course status: ELECTIVE		**Total course hours: 60** Lectures: 30 Laboratory: 30	
Teaching participants:	**Teachers and associates with expertise in the field to which the subject belongs**		
Prerequisite for enrollment:	-		
Course aims:	The aim of the module is to familiarize the student with the mechanism of immobilized enzyme, as well as with the various electrochemical effects of the enzyme reaction.		
Thematic course units:	1. Kinetics of immobilized enzymes 2. Inhibition of immobilized enzymes 3. Influence of pH and temperature of immobilized enzymes 4. Enzymatic reactions on the appropriate membrane 5. Methods of immobilization 6. Non-covalent adsorption 7. Enforcement of enzymes 8. Properties of immobilized biocatalysts 9. Effects of mass transfer 10. Stability and activity of immobilized enzyme		
Learning outcomes:	Knowledge: Students will gain knowledge about enzyme immobilization. Skills: Students will be able to use experimental methods in enzyme inhibition. Competences: Application of immobilized enzyme in biotechnology, pharmaceutical and food industry.		
Teaching methodology:	Lectures (oral presentation and interactive classes) Laboratory exercises		
Assessment methods and grading system[1]:	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

[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 (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
Literature[2]:	Supplementary literature: 1. P.N. Bartlett, Bioelectrochemistry, Fundamentals, Experimental Techniques and Applications, Wiley Inc.USA, 2008 2. H.Bisswanger, Enzime Kinetics, Principles and Methods, Wiley Inc.USA, 2008 3. K.Drauz, H.Waldmann, Enzyme Catalysis in Organic Synthesis, Wiley Inc.USA, 2002 4. H. J. Smith, C. Simons, Enzymes and Their Inhibition, Drug Development, Cambridge University Press,2005 5. R.A.Copeland, Evaluation of enzyme inhibitors in drug discovery, Wiley Inc.USA, 2005

[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