



Course ID: HDFH18	Course name: KINETIC DEVELOPMENT OF DRUGS AS ENZYME INHIBITORS		
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:	The aim of the module is to explain to the student the kinetics and mechanism of drugs as enzyme inhibitors. To acquaint students with the constants of inhibitor binding and the application of drugs to certain enzymes and certain types of diseases.		
Thematic course units:	<ol style="list-style-type: none"> 1. Introduction to the development of drugs as enzyme inhibitors 2. Rational selection of appropriate enzyme and inhibitor 3. Selectivity and toxicity 4. Kinetic approach to enzyme inhibitor design 5. The flow of drugs and enzymes in the body 6. Binding kinetics of inhibitors 7. Determining the constant rate of inhibition 8. Examples of enzyme inhibitors for the treatment of cancer 9. Thrombin as an enzyme inhibitor 10. An example of the development of HIV-1 protease as an inhibitor 11. Development of metalloproteinases as inhibitors 		
Learning outcomes:			
Teaching methodology:			
Assessment methods and grading system¹:	Grading criteria		
	Criteria	Maximal score	Required score
	1. Midterms	30	16,5

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

	2. Seminar paper	30	16,5
	3. Final exam	40	22
	Total	100	55
	Note: Class activity is scored through student work on exercises.		
	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
Literature²:	<p>Supplementary literature:</p> <ol style="list-style-type: none"> 1. H. J. Smith, C. Simons, Enzymes and Their Inhibition, Drug Development, Cambridg University Press,2005 2. R.A.Copeland, Evaluation of enzyme inhibitors in drug discovery, Wiley Inc.USA, 2005 3. H.Bisswanger, Enzime Kinetics, Wiley Inc.USA, 2008 		

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