

Course title: Enzymology						
	Specialty	Semester	Number of ECTS	Number of hours in the class	Form	
	Foreign students	summer	1	15	Lecture	
Name of lecturer: Prof. Adam Lesner						
Objective of the course (expected learning outcomes and competences to be acquired) The objectives of this course are to: introduce students to various theoretical and practical aspects of enzymology stimulates their interest in learning the structure, function and kinetics of enzyme and their role as catalyst and regulator of cell metabolism. In details student will develop ability to plan and execute an enzyme assay; (b) to analyze enzyme kinetic data; (c) to analyze kinetic inhibition data and to determine the mechanism of inhibition; (d) to perform library research a specific enzyme topic						
Prerequisites: Basic Biochemistry and Organic chemistry course						
Teaching methods: <ul style="list-style-type: none"> Lecture with multimedia presentation 						
Course contents: Structure and functions of proteins in general. General properties of enzymes; enzyme classification and basic principles of enzymatic reactions. Mechanism of enzyme catalysis; enzyme kinetics; definition of enzymatic assay, its constituents and their effect on the reaction rate; rate equations for single substrate reaction ; regulation of enzymatic activity(modulators, modification, compertmalisation); specificity of enzymes isolation and purification methods of selected enzymes.						
Recommended reading: i) Lehninger ,A.L, Nelson, D.L., and Cox, M.M. (1993) Principles of Biochemistry 2nd Edition. Worth Publishers, New York. ii) Stryer, L (1988) Biochemistry. 3rd Edition. W.H. Freeman and Co. New York iii) Antonov VK Chemistry of Proteolysis, Springer-Verlag, New York						
Assessment methods: <ul style="list-style-type: none"> End-term test 						
Language of instruction: English						