Tárgytematika / Course Description

Biochemistry

MENB_VKTA003

Tárgyfelelős neve / Teacher's name: dr. Bali-Papp Ágnes Jolán
Félév / Semester: 2020/21/1
Beszámolási forma / Assesment: Vizsga
Tárgy heti óraszáma / Teaching hours(week): 2/1/0
Tárgy féléves óraszáma / Teaching hours(sem.): 0/0/0

OKTATÁS CÉLJA / AIM OF THE COURSE

Biochemistry – sometimes called biological chemistry – is the study of chemical processes within and relating to living organisms. Biochemistry focuses on understanding the chemical basis which allows biological molecules to give rise to the processes that occur within living cells and between cells, which in turn relates greatly to the study and understanding of tissues, organs, and organism structure and function.
We will examine the molecules and molecular constituents that are used by life
forms and will then consider the rules that govern how biochemical information is accessed and how it is passed from one generation to the next.

TANTÁRGY TARTALMA / DESCRIPTION

I.Introduction to Biochemistry
II.Some Basics to Understanding Biochemistry
III.Protein Composition and Structure
IV.Basic Concepts of Enzymes
V.Carbohydrates
VI.Lipides, written test
VII.Basic Concepts and Design of Metabolism
VIII.Glycolysis, Citric Acid Cycle, Oxidative Phosporylation
IX.Photosynthesis
X.Fatty Acid and Lipid Metabolism
XI.Metabolism of Nitrogen-Containing Molecules
XII.Nucleic Acids and Protein Synthesis, written test
XIII.Role of Metals in Biological Systems
XIV.Analytical Techniques in Biochemistry

SZÁMONKÉRÉSI ÉS ÉRTÉKELÉSI RENDSZERE / ASSESMENT'S METHOD

The condition for applying for the exam is that the two written mid-term papers reach a level of at least 50%. The assessment of the subject ends with a written exam at the end of the semester.

KÖTELEZŐ IRODALOM / OBLIGATORY MATERIAL

Required reading:
John L. Tymoczko - Jeremy M. Berg - Lubert Stryer (2013): Biochemistry - A Short Course. W. H. Freeman and

Company. New York

Recommended reading:
Hiram F. Gilbert (2000): Basic Concepts in Biochemistry. McGraw-Hill.