

**THE TIME-TABLE**  
**of Biological chemistry lectures**

2022/2023 acad. year, *autumn semester* for 2<sup>nd</sup> year students of the Faculty of International Students

№	DATE	TOPIC	SSART
1	03.09	<i>Introduction to Biochemistry.</i> Protein chemistry.	Methods for qualitative detection and quantitative determination of protein. Protein isolation and purification methods.
2	07.09	<i>Enzymes.</i> The structure and properties. The mechanism of action.	Allosteric regulation. Properties of allosteric enzymes. The importance of enzymes in life processes
3	21.09	<i>Enzymes.</i> The regulation of activity.	Localization of enzymes in the cell. Isozymes, their biological role. Enzymopathies, enzyme diagnostics, enzyme therapy
4	05.10	<i>Biologic oxidation.</i> Krebs cycle	Enzymes, coenzymes BO. Vitamins PP, B <sub>2</sub> . Structure and role in energy metabolism.
5	19.10	<i>Biologic oxidation.</i> Tissue respiration. Oxidative phosphorylation.	Antioxidant defence (AOD): enzymatic and non-enzymatic
6	02.11	<i>Carbohydrates.</i> Anaerobic metabolism.	Ethanol metabolism
7	16.11	<i>Carbohydrates.</i> Aerobic metabolism. Gluconeogenesis. Pentose phosphate pathway.	The main clinical manifestations of DM. Complications of DM. Diagnosis and principles of DM treatment.
8	30.11	<i>Lipids.</i> Lipoprotein classification and metabolism. Tissue lipid metabolism: lipolysis, fatty acids $\beta$ -oxidation, ketone bodies metabolism.	Formation and physiological role of fatty acids and their derivatives. Eicosanoids
9	14.12	<i>Lipids.</i> Tissue lipid metabolism: lipid biosynthesis.	Features of fatty acid oxidation in peroxisomes: $\alpha$ - and $\omega$ -oxidation.
10	28.12	<i>Proteins and nucleic acids.</i> Digestion and absorption of proteins.	Mediators and hormones of the gastrointestinal tract - gastrin, secretin, cholecystokinin, gastroinhibiting peptide, somatostatin, enteroglucagon (glucagon-like peptide), etc.

The head of department  
31.08.2022

I.A.Nikitina