

LABORATORY CLASSES

Plan of laboratory classes for the international students of medical faculty (*speciality: dentistry*) studying
biochemistry in English **2025 – 2026** year
Spring semester

N	Date	Topic
1	09.02-13.02	Introduction to biochemistry. Structure of proteins. Physical and chemical properties of proteins. Mechanisms of protein sedimentation. <i>Manual of biochemistry (p.5-6).</i>
2	16.02-20.02	Enzymes. Classification, structure, properties. <i>Manual of biochemistry (p.7-8).</i>
3	23.02-27.02	Regulation of enzyme activity. Determination of enzyme activity. <i>Manual of biochemistry (p.9-10).</i>
4	02.03-06.03	Introduction to metabolism. The central metabolic pathways – the Krebs citric acid cycle. <i>Manual of biochemistry (p.10-12).</i>
5	09.03-13.03	Biological oxidation. Pathways of oxygen utilization by cells. Oxidative phosphorylation. <i>Manual of biochemistry (p.12-14)</i>
6	16.03-20.03	COLLOQUIUM “ENZYMES. INTRODUCTION TO METABOLISM. CENTRAL METABOLIC PATHWAY. BIOLOGICAL OXIDATION. OXIDATIVE PHOSPHORYLATION” Questions for preparation – see <i>Manual of biochemistry (p. 14)</i>
7	23.03-27.03	Digestion of carbohydrates. Metabolism of glycogen. Glycolysis. <i>Manual of biochemistry (p.15-16).</i>
8	30.03-03.04	Metabolic pathways of pyruvate. Gluconeogenesis. Aerobic oxidation of glucose. Determination of pyruvate in the urine. <i>Manual of biochemistry (p. 16-17)</i>
9	06.04-10.04	Secondary pathways of glucose metabolism. Effect of hormones on the blood glucose level. Features carbohydrate utilization of oral microflora. <i>Manual of biochemistry (p.17-18).</i>
10	13.04-17.04	COLLOQUIUM “METABOLISM OF CARBOHYDRATES” Questions for preparation – see <i>Manual of biochemistry (p.19)</i>
11	20.04-24.04	Lipid metabolism. Digestion, absorption and re-synthesis. Evaluation of lipase activity. <i>Manual of biochemistry (p.19-20).</i>
12	27.04-01.05	Lipids blood transport. Metabolism of cholesterol. Depositing and mobilization of lipids. Determination of plasma β -lipoproteins. <i>Manual of biochemistry (p.21-22).</i>
13	04.05-08.05	Fatty acids metabolism. Metabolism of ketone bodies. Determination of total cholesterol concentration in serum. <i>Manual of biochemistry (p.22-23).</i>
14	11.05-15.05	COLLOQUIUM “LIPID METABOLISM” Questions for preparation – see <i>Manual of biochemistry (p.24)</i>
15	18.05-22.05	Control over practical skills of biochemical analysis.
16	25.05-29.05	Digestion and absorption of proteins. Analysis of gastric juice. <i>Manual on biochemistry (p.29-31)</i>
17	01.06-05.06	Credit.

Exam session: 13.06.2026-05.07.2026

Head of the department of biochemistry,
professor



A.D. Tahanovich