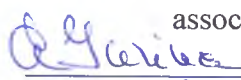


**Federal State Budgetary Educational Institution of Higher Education
«North-Ossetia State Medical Academy» of the Ministry of Healthcare of the Russian
Federation**

Department of biological chemistry

Approved
Head of the department,
associate professor


A. E. Gurina
"06" February 2023 year.

Calendar-thematic plan of practical classes

Discipline of biological chemistry
Course 2
Medical faculty _____

for the spring semester 2022-2023 school year

№	Date	The name of the theme	Hours
1	09.02.23-10.02.23	Lipids: structure, properties, classification.	2
2	13.02.23-17.02.23	Digestion and absorption of lipids in the gastrointestinal tract. Stages, characteristic. The role of bile acids in this process.	2
3	13.02.23-17.02.23	Exchange of higher fatty acids: oxidation and biosynthesis. Regulation. Exchange of ketone bodies. Determination of ketone bodies in urine.	2
4	20.02.23-24.02.23	The exchange of simple and complex lipids, TAG and phospholipids.	2
5	20.02.23-24.02.23	Cholesterol metabolism. Quantitative determination of serum cholesterol.	2
6	27.02.23-03.03.23	Lipoprotein spectrum of blood plasma. Pathology of lipid metabolism. Biochemical aspects of the development of atherosclerosis. Lipidoses.	2
7	27.02.23-03.03.23	Module section: "Lipid metabolism".	2
8	06.03.23-10.03.23	Digestion and absorption of proteins. Determination of the activity of the enzymes of the gastric juice.	2
9	06.03.23-10.03.23	Common pathways of amino acid catabolism: transamination. Clinical and diagnostic value of the determination of transaminase activity in blood serum	2
10	13.03.23-17.03.23	The general way of catabolism of amino acids: deamination, decarboxylation.	2
11	13.03.23-17.03.23	Ways of accumulation and neutralization of ammonia in the human body. Quantitative determination of urea in the blood.	2
12	20.03.23-24.03.23	The exchange of individual amino acids. Quantitative determination of creatinine in blood serum.	2
13	20.03.23-24.03.23	Module section: "Exchange of simple proteins."	2
14	27.03.23-31.03.23	Exchange of nucleoproteins: purine nucleotides.	2
15	27.03.23-31.03.23	Exchange of nucleoproteins: pyrimidine nucleotides	
16	03.04.23-07.04.23	Chromoprotein metabolism: biosynthesis and breakdown of hemoglobin in tissues. Iron metabolism. Metabolic disorders of bile pigments. Jaundices. Violations of heme synthesis, porphyria. Quantitative determination of direct blood bilirubin.	2
17	03.04.23-07.04.23	Module section: "Exchange of complex proteins."	2
18	10.04.23-14.04.23	Introduction to endocrinology. Chemistry of peptide hormones. Secondary	2

		messengers. Carrying a hormonal signal.	
19	10.04.23-14.04.23	Iodine-containing thyroid hormones, biosynthesis, properties, hormonal effect. Hormones of pancreas: synthesis, properties, biological effects.	2
20	17.04.23-21.04.23	Steroid hormones: synthesis, mechanism of cellular action, biological role of mineralocorticoids.	2
21	17.04.23-21.04.23	Steroid hormones: synthesis, mechanism of cellular action, biological role of glucocorticoids.	2
22	24.04.23-28.04.23	Sex hormones: female and male. Synthesis, mechanism of cellular action, biological role. Endocrinopathy.	2
23	24.04.23-28.04.23	Module section: "Hormonal regulation of metabolism".	2
24	01.05.23-05.05.23	Blood biochemistry: organic composition of blood. Biochemical aspects of the body's immune defense.	2
25	01.05.23-05.05.23	Inorganic composition of blood. Quantitative determination of blood calcium.	2
26	08.05.23-12.05.23	Module section: "Blood biochemistry".	2
27	08.05.23-12.05.23	Biochemistry of the kidneys. The process of secondary urine formation. Physicochemical properties of urine. Organic and inorganic composition of urine.	2
28	15.05.23-19.05.23	Pathological components of urine. Regulation of water-salt metabolism.	2
29	15.05.23-19.05.23	Module section: "Biochemistry of urine".	2
30	22.05.23-26.05.23	Final lesson.	2

Assistant of the department
Handwritten signature Kaitukova D.I.
 "06" *February* 2023 year.