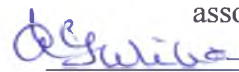


**Federal State Budgetary Educational Institution of Higher Education
«North-Ossetia State Medical Academy» of the Ministry of Healthcare of the Russian
Federation**

Department of biological chemistry

Approved

Head of the department,
associate professor

 A. E. Gurina
" 30 " august 2021 year.

Calendar-thematic plan of practical classes

Discipline of biological chemistry

Course 2

Medical faculty _____

for the autumn semester 2021-2022 school year

№	Дата	Наименование темы	hours
1.	01.09.2021 03.09.2021	Introductory lesson	2
2.	01.09.2021 03.09.2021	Proteinogenic amino acids: structure, properties, classification	2
3.	06.09.2021 10.09.2021	Chemistry of simple proteins, the structural organization of a protein molecule	2
4.	06.09.2021 10.09.2021	Physical and chemical properties of simple proteins. Deposition and isolation methods	2
5.	13.09.2021 17.09.2021	Chemistry of complex proteins. Determination of nucleo -, chromoproteins	2
6.	13.09.2021 17.09.2021	Chemistry of complex proteins. Determination of lipoproteins, glyco-and phosphoproteins	2
7.	20.09.2021 24.09.2021	Module: "Protein chemistry"	2
8.	20.09.2021 24.09.2021	Water-soluble vitamins: vitamin B1, B2, B6, PP, C. Coenzyme function. Participation in the metabolism of substances and energy	2
9.	27.09.2021 01.10.2021	Fat-soluble vitamins A, D, E, F, K, their biological role. The metabolism of vitamins in the human body.	2
10.	27.09.2021 01.10.2021	Enzymes as biological catalysts: structure and properties. Determination of enzymatic activity in biological fluids	2
11.	04.10.2021 08.10.2021	Classification of enzymes.	2
12.	04.10.2021 08.10.2021	Regulation of enzyme activity: covalent modification, partial proteolysis, association, dissociation, protein-protein interaction	2
13.	11.10.2021 15.10.2021	Regulation of enzyme activity. Inhibition, allosteric regulation	2
14.	11.10.2021 15.10.2021	Medical aspects of enzymology	2
15.	18.10.2021 22.10.2021	Module: "Enzymes"	2

16.	18.10.2021 22.10.2021	Biological membranes. The structure, composition of membranes and their role in metabolism.	2
17.	25.10.2021 29.10.2021	Methods of transmembrane transfer of substances.	2
18.	25.10.2021 29.10.2021	Mechanisms of signal input into the cell.	2
19.	01.11.2021 05.11.2021	Metabolism and energy. Stages of energy production: hydrolysis, intermediate exchange (anabolism, catabolism)	2
20.	01.11.2021 05.11.2021	The electron transport chain (ETC), its structural organization.	2
21.	08.11.2021 12.11.2021	The mechanism of oxidative phosphorylation. The Mitchell-Skulachev theory. Respiratory control. Phosphorylation coefficient	2
22.	08.11.2021 12.11.2021	Peroxidation. Its role in the norm and pathology. Reactive oxygen species	2
23.	15.11.2021 19.11.2021	A common pathway of catabolism - tricarboxylic acid cycle (TCA). Determination of succinate dehydrogenase activity.	2
24.	15.11.2021 19.11.2021	Module: "Introduction to metabolism. Biological oxidation. TCA".	2
25.	22.11.2021 26.11.2021	Digestion and absorption of carbohydrates in the gastrointestinal tract. Conversion of hexoses in the liver (galactose, fructose).	2
26.	22.11.2021 26.11.2021	Anaerobic glucose oxidation: glycolysis, regulation of the process.	2
27.	29.11.2021 03.12.2021	Aerobic glucose oxidation: dichotomous and apotomic glucose oxidation (aerobic glycolysis, pentose-phosphate cycle)	2
28.	29.11.2021 03.12.2021	Glycogen metabolism. Glycogenolysis, glycogenesis, alcoholic fermentation	2
29.	06.12.2021 10.12.2021	Gluconeogenesis. Regulation of blood glucose levels.	2
30.	06.12.2021 10.12.2021	Module: "Carbohydrate exchange"	2

Assistant of the department
Kaitukova Kaitukova D.I.
 "30" *august* 2021 year.