

Approved
Vice-Chancellor for Academic Affair
Prof. J. Guminsky
26.01.2018

THE CALENDAR-THEME SCHEDULE OF LECTURES
to biochemistry for 2nd year students of the stomatological faculty on the IV
(spring) semester (2017-2018 academic years)

№	Date	Theme of lecture	Lecturer	Time (h)
11	31.01.	Hormones. Molecular mechanisms of regulatory signals transduction: membranous and cytosolic. Apoptosis.	Associate prof. M.M.Chervyack	2
12	14.02.	Biochemistry of blood. Proteins and enzymes of blood. Blood buffer systems. Rest nitrogen. Peculiarity of metabolism in erythrocytes.	Associate prof. M.M.Chervyack	2
13	28.02.	Biochemistry of liver. Pigmentary metabolism. Its role in protein, lipid and carbohydrate metabolisms. Jaundices: types, reasons, biochemical diagnostics.	Associate prof. M.M.Chervyack	2
14	14.03.	Biochemistry of kidneys. Water-mineral metabolism.	Associate prof. M.M.Chervyack	2
15	28.03.	Biochemistry of tooth and salive.	Associate prof. M.M.Chervyack	2
			Total	10

**Head of Biochemistry
Department**



Prof. Zaichko N.V.



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**THE CALENDAR-THEME SCHEDULE OF LABORATORY LESSONS TO BIOCHEMISTRY
 FOR 2ND YEAR STUDENTS OF THE STOMATOLOGICAL FACULTY ON THE IV (SPRING)
 SEMESTER (2017-2018 academic years)**

№	Date	Theme of laboratory lesson	Time
21	29.01.-02.02 2018	Nucleoproteins. Nucleic acids. Metabolism of mononucleotides. Qualitative analysis of nucleoproteins.	2
22	05.02 - 09.02	Molecular biology. Genetic code. Replication. Transcription. Quantitative determination of DNA and RNA in biological materials.	2
23	12.02 - 16.02	Translation. Inhibitors of translation. Post-translational modification of proteins. Determination of phenyl pyruvate and homogentisic acid in urine.	2
24	19.02 – 23.02	Regulation of genes expression. Mutations.	2
25	25.02 -02.03	Concluding session “Metabolism of amino acids. Molecular biology”	2
26	05.03 – 09.03	Hormones. Molecular mechanisms of regulatory signals transduction. Apoptosis. Qualitative reactions on insulin. Determination of NO metabolites in saliva.	2
27	12.03 – 16.03	Characteristics of hormones of central and peripheral endocrine glands. Determination of 17- ketosteroids.	2
28	19.03 – 23.03	Hormones of endocrine glands characteristics. Endocrine control of Ca and P homeostasis. Influence of adrenalin and insulin on glucose levels in blood.	2
29	25.03 – 30.03	Vitamins: definition, basic concepts of vitaminology, classification, nomenclature. Vitamine-like compounds. Quantitative determination of vitamins C and P in food products.	2
30	02.04 – 06.04	Characteristics of water-soluble vitamins of B group, its coenzymatic and non-coenzymatic functions, food sources, daily needs, symptoms of avitaminosis, medical use. Qualitative reactions on water-soluble vitamins.	2
31	09.04 – 13.04	Lipid soluble vitamins: coenzymatic and non- coenzymatic functions, medical use. Symptoms and reasons of avitaminosis and hypervitaminosis. Qualitative reactions on vitamins A and K	2
32	16.04 – 20.04	Blood as biological fluid: functions, physicochemical constants. Rest nitrogen. Quantitative determination of chlorides in blood.	2
33	23.04 – 27.04	Proteins of blood plasma. Enzymes of blood. Peculiarity of metabolism in erythrocytes. Hemoglobinopathies, porphyries. Qualitative tests on heme in HHb.	2
34	30.04 – 04.05	Biochemical functions of liver and its role in protein, lipid and carbohydrate metabolisms. Catabolism of HHb in tissues. Jaundices. Determination of urobilin in urine (Florans test) and total bilirubin in blood. Quantitative determination of total protein in blood.	2
35	07.05 – 11.05	Detoxificational function of liver. Common pathways of xenobiotics metabolism. Reactions of conjugation. Detection of anilin metabolites in urine. Amidopirin test.	2
36	14.05 – 18.05	Water-mineral metabolism. Biochemistry of kidneys and urine. Physicochemical properties of urine, its titration acidity. Qualitative reactions on Ca^{2+} , Mg^{2+} and PO_4^{3-} .	2
37	21.05 – 25.05	Concluding session “Functional biochemistry”	2
38	28.05 – 01.06	Biochemistry of tooth and saliva. Biochemistry of connective tissue. Qualitative reactions on glycosaminoglycans.	2
39	04.06 – 08.06	Practical training and situational tasks.	2
40	11.06 – 15.06	Computer testing for an exam.	2
		Total	40

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