



**LECTURES PLANNED SCHEDULE**  
 on Biological chemistry for 3-d year students  
 speciality 226 Pharmacy (Language of instructions – English)  
ΦM18\*(5,0)ΑΗΓΛ-01-02  
 spring semester, 2019-2020 a.y.

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##	Date	Lecture Topic	Hours	Lecturer
<b>MODULE 1. GENERAL PRINCIPLES OF CELLULAR METABOLISM ORGANIZATION.</b>				
1.	11.02.2020	Introduction in Biochemistry. Amino Acids, Peptides, Proteins.	1	as.prof. Krasilnikova O.A.
2.	11.02.2020	Levels of Protein Structure. Physical-chemical properties of Proteins.	1	as.prof. Krasilnikova O.A.
3.	25.02.2020	Carbohydrates and Lipids: Structure, Classification and Functions.	1	as.prof. Krasilnikova O.A.
4.	25.02.2020	Protein Complexes with Carbohydrates and Lipids.	1	as.prof. Krasilnikova O.A.
5.	10.03.2020	Conjugated Proteins: Hemoproteins, Metalloproteins, and Phosphoproteins. Classification and Biological Functions.	1	as.prof. Krasilnikova O.A.
6.	10.03.2020	Nucleoproteins and Nucleic Acids. Structure, Functions, Biological Role.	1	as.prof. Krasilnikova O.A.
7.	24.03.2020	Nomenclature and Classification of the Vitamins. Fat-soluble Vitamins.	1	as.prof. Krasilnikova O.A.
8.	24.03.2020	Water-soluble Vitamins. Interaction of Vitamins. Vitamin Products.	1	as.prof. Krasilnikova O.A.
9.	07.04.2020	Enzymes: Structure, Nomenclature, Classification.	1	as.prof. Krasilnikova O.A.
10.	07.04.2020	Enzyme Kinetics. Catalytic Mechanisms. Enzyme Regulation.	1	as.prof. Krasilnikova O.A.
11.	21.04.2020	Introduction into Metabolism. Citric Acid Cycle.	1	as.prof. Krasilnikova O.A.
12.	21.04.2020	Electron transport chain (ETC).	1	as.prof. Krasilnikova O.A.
13.	05.05.2020	Oxidative Phosphorylation. Inhibitors of ETC and Uncouplers. Microsomal oxidation. Non-enzymatic oxidation.	1	as.prof. Krasilnikova O.A.
14.	05.05.2020	Pharmaceutical Biochemistry. Biogenic Compounds and Xenobiotics as Medicinal Preparations.	1	as.prof. Krasilnikova O.A.
15.	19.05.2020	Biogenic Compounds and Xenobiotics as Medicinal Preparations.	1	as.prof. Krasilnikova O.A.
16.	19.05.2020	Enzymes of Drug Metabolism. Pharmacokinetics and Excretion of Medicinal Preparations. Factors affecting the drug metabolism.	1	as.prof. Krasilnikova O.A.
17.	02.06.2020	Principles of Cell Signaling. Pathways of Intracellular Signal Transduction.	1	as.prof. Krasilnikova O.A.
18.	02.06.2020	Receptors. Types of cell receptors. Intracellular mediators.	1	as.prof. Krasilnikova O.A.
<b>Total:</b>			18	

*Note:* lectures are given on Tuesdays from 12.50 P.M. to 14.30 PM. in lecture hall № 1.

Head of the biological chemistry department, as.prof .

Kravchenko G.B.

##		Date	Topic	Hours	Points	
					min	max
<b>CONCEPT MODULE 1. STRUCTURE AND FUNCTIONS OF BIOMOLECULES.</b>						
1.	13.02.2020	Introduction in Biochemistry. Amino Acids, Peptides, Proteins.		4	-	-
2.	27.02.2020	Levels of Protein Structure. Physical-chemical properties of Proteins.		4	4	6
3.	12.03.2020	Carbohydrates and Lipids: Structure, Classification and Functions. Protein Complexes with Carbohydrates and Lipids.		4	2	5
4.	26.03.2020	Conjugated Proteins: Hemoproteins, Metalloproteins, Phosphoproteins Nucleoproteins and Nucleic Acids. Structure, Functions, Biological Role.		4	4	6
		<i>Final conceptual module control CMI</i>			4	8
<b>Total for CMI</b>					14	25
<b>CONCEPT MODULE 2. GENERAL PRINCIPLES OF CELLULAR METABOLISM ORGANIZATION</b>						
5.	09.04.2020	Nomenclature and Classification of the Vitamins. Fat-soluble Vitamins. Water-soluble Vitamins. Interaction of Vitamins. Vitamin Products.		4	3	6
6.	23.04.2020	Enzymes: Structure, Nomenclature, Classification. Enzyme Kinetics. Catalytic Mechanisms. Enzyme Regulation.		4	3	6
7/	07.05.2020	Introduction into Metabolism. Electron transport chain (ETC). Oxidative Phosphorylation. Inhibitors of ETC and Uncouplers. Microsomal oxidation. Non-enzymatic oxidation.		4	5	8
8.	21.05.2020	Pharmaceutical Biochemistry. Biotransformation of Xenobiotics Including Medicinal Preparations.		4	2	3
		<i>Final conceptual module control CM2</i>			8	12
<b>Total for CM2</b>					21	35
9.	04.06.2020	<b>Final module 1 control: "General Principles of Cellular Metabolism Organization".</b>		4	25	40
10.	08.06.2020-12.06.2020	<b>Moduli 1 rating improvement: "General Principles of Cellular Metabolism Organization".</b>				
<b>TOTAL RATING FOR MODULE 1:</b>				<b>36</b>	<b>60</b>	<b>100</b>

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##		Date	Topic	Hours	Points	
					min	max
<b>CONCEPT MODULE 1. STRUCTURE AND FUNCTIONS OF BIOMOLECULES.</b>						
1.	05.02.2020	Introduction in Biochemistry. Amino Acids, Peptides, Proteins.		4	-	-
2.	19.02.2020	Levels of Protein Structure. Physical-chemical properties of Proteins.		4	4	6
3.	04.03.2020	Carbohydrates and Lipids: Structure, Classification and Functions. Protein Complexes with Carbohydrates and Lipids.		4	2	5
4.	18.03.2020	Conjugated Proteins: Hemoproteins, Metalloproteins, Phosphoproteins Nucleoproteins and Nucleic Acids. Structure, Functions, Biological Role.		4	4	6
		<i>Final conceptual module control CM1</i>			4	8
<b>Total for CM1</b>					14	25
<b>CONCEPT MODULE 2. GENERAL PRINCIPLES OF CELLULAR METABOLISM ORGANIZATION</b>						
5.	01.04.2020	Nomenclature and Classification of the Vitamins. Fat-soluble Vitamins. Water-soluble Vitamins. Interaction of Vitamins. Vitamin Products.		4	3	6
6.	15.04.2020	Enzymes: Structure, Nomenclature, Classification. Enzyme Kinetics. Catalytic Mechanisms. Enzyme Regulation.		4	3	6
8.	29.04.2020	Introduction into Metabolism. Electron transport chain (ETC). Oxidative Phosphorylation. Inhibitors of ETC and Uncouplers. Microsomal oxidation. Non-enzymatic oxidation.		4	5	8
10.	13.05.2020	Pharmaceutical Biochemistry. Biotransformation of Xenobiotics Including Medicinal Preparations.		4	2	3
		<i>Final conceptual module control CM2</i>			8	12
<b>Total for CM2</b>					21	35
11.	27.05.2020	<b>Final module 1 control: "General Principles of Cellular Metabolism Organization".</b>		4	25	40
12.	13.01.2020-19.01.2020	<b>Moduli 1 rating improvement: "General Principles of Cellular Metabolism Organization".</b>				
<b>TOTAL RATING FOR MODULE 1:</b>				<b>36</b>	<b>60</b>	<b>100</b>

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