Thematic plan of laboratory works on normal physiology
for students studying in English medium
(III semester 2025-2026 year)

№	**Name of subjects, content**	Number of hours
1.	1. SUBJECT AND METHODS OF NORMAL PHYSIOLOGY 1.1. Instructions on safety rules 1.2. Blood sampling method from a finger 1.3. Fresh blood sample under the microscope	**4** **08.09.25** **12.09.25**
	PHYSIOLOGY OF BLOOD	
2.	2. FUNCTIONS AND PHYSICAL-CHEMICL PROPERTIES OF BLOOD. PHYSIOLOGY OF ERYTHROCYTES. 2.1. Measurement of hematocrit number 2.2. Measurement of erythrocytes amount	**4** **15.09.25** **19.09.25**
3.	3. PHYSIOLOGY OF LEUCOCYTES AND THROMBOCYTES. BLOOD COAGULATION SYSTEM 3.1. Measurement of hemoglobin amount in blood by Sali method 3.2. Calculation of erythrocyte indices 3.3. Evaluation of leukocyte morphology. 3.4. Measurement of blood coagulation time by Althousen	**4** **22.09.25** **26.09.25**
4.	4. ESR. BLOOD GROUPS. REGYLATION OF HAEMOPPOESIS. 4.1. Examination of various kinds of hemolysis. 4.2. Examination of osmotic resistance of erythrocytes 4. 3. Measurement of erythrocyte sedimentation rate (ESR) by T.P. Panchenkov 4.4. Blood groups determination 4.5. Determination of rhesus-factor (Rh) of blood	**4** **29.09.25** **03.10.25**
5.	CONTROL CLASS ON THE TOPIC «PHYSIOLOGY OF BLOOD»	**4** **06.10.25** **10.10.25**
	PHYSIOLOGY OF EXCITABLE TISSUES	
6.	6. MEMBRANE RESING POTENTIAL. ACTION POTENTIAL 6.1. Dynamometry. Measuring of human power. Torso dynamometry.	**4** **13.10.25** **17.10.25**
7.	7. PHYSIOLOGICAL PROPERTIES OF SKELETAL AND SMOOTH MUSCLES 7.1. PWC measurement by step-test method 7.2. Veloergometry. Measurement of physical working capacity by PWC170 test	**4** **20.10.25** **24.10.25**
	CENTRAL NERVOUS SYSTEM	
8.	8. GENERAL PRINCIPLE OF COORDINATION ACTIVITY OF CNS. CONCEPT OF NERVOUS CENTERS. INHIBITION IN CNS 8.1. Examination of reflex reactions of the person	**4** **27.10.25** **31.10.25**
9.	9. PHYSIOLOGY OF SPINAL CHORD, BRAIN STEM, MIDBRAIN, DIENCEPHALON. 9.1. Examination of redistributing vascular reactions of the organism by rheovasography method	**4** **03.11.25** **07.11.25**
10	10. REFLEX ACTIVITY OF THE VEGETATIVE NERVOUS SYSTEM. 10.1. Evaluation of the state and the reactivity vegetative nervous system by method of cardiointervalography 10.2. Evaluation of vegetative tonus by Kerdo index	**4** **10.11.25** **14.11.25**

11.	CONTROL CLASS ON TOPICS «PHYSIOLOGY OF EXCITABLE TISSUES», «GENERAL AND PARTICULAR PHYSIOLOGY OF CNS»	**4 17.11.25 21.11.25**
	ENDOCRINE SYSTEM	
12.	12. ENDORINE SYSTEM, PHYSIOLOGICAL ROLE, REGULATION OF HORMONS FORMATION 12.1. Evaluation of human height 12.2. Identification of persons with high risk of diabetes mellitus by questionnaire method 13 HORMONAL REGULATION OF PHYSIOLOGICAL FUNCTIONS 13.1. Influence of thermal procedures on the activity of medullary layer of adrenal glands 13.2. Analysis of conception scale at menstrual cycles f various duration	**4 24.11.25 28.11.25**
	PHYSIOLOGY OF RESPIRATION	
13.	14. MECHANISM OF RESPIRATORY MOVEMENTS. RESPIRATORY VOLUMES AND CAPACITIES. 14.1. Spirometry. Definition of vital capacity of lungs and its volumes.	**4 01.12.25 05.12.25**
14.	15. GAS EXCHANGE IN LUNGS AND TISSUES. TRANSPORT OF GASES BY BLOOD 15.1. Spirography.	**4 08.12.25 12.12.25**
15.	16. REGULATION OF RESPIRATION. FUNCTIONAL METHODS OF EXAMINATION OF RESPIRATORY SYSTEM 16.1. Functional test with breath-holding (Genche's and Stange's tests)	**4 15.12.25 19.12.25**
16.	CONTROL CALSS ON TOPICS «PHYSIOLOGY OF ENDOCRINE SYSTEM», «PHYSIOLOGY OF RESPIRATION»	**4 22.12.25 26.12.25**
17.	FUNCTIONAL TESTS FOR EXAMINATION OF RESPIRATORY SYSTEM 16.2. Evaluation of functional state of respiratory system and cardiovascular system by Skibinskaya's index 16.3. Evaluation of physical endurance in person by calculation of cardiorespiratory index	**4 29.12.25 02.01.26**
18.	**CONTROL CLASS**	**3 05.01.26 09.01.26**