Thematic plan of lectures on normal physiology for students studying in English medium (III semester 2026-2027 year)

№ of lecture	Name of the lecture	Number of hours	Lecturer
1.	**1. INTRODUCTION. Subject and problems of physiology. The bases of intercellular communication, information exchange and regulation of physiological functions of a cell.**	**2**	**Professor Melnik V.A. 11.09.26 08.00-09.25**
2.	**2. HOMEOSTASIS. INTERNAL ENVIRONMENT OF THE ORGANISM. BLOOD SYSTEM Homeostasis. Functions of blood and their mechanisms.**	**2**	**Professor Melnik V.A. 18.09.26 08.00-09.25**
3.	**2. INTERNAL ENVIRONMENT OF THE ORGANISM. BLOOD SYSTEM The system of hemostasis. Blood groups.**	**2**	**Professor Melnik V.A. 25.09.26 08.00-09.25**
4.	**3. PHYSIOLOGY OF EXCITABLE TISSUES Concept about the electric signalization. Excitability. Ionic channels. Formation of bioelectric potentials Formation and conduction of nervous impulses. Synapse transmission.**	**2**	**Professor Melnik V.A. 02.10.26 08.00-09.25**
5.	**3. PHYSIOLOGY OF EXCITABLE TISSUES. Physiology of skeletal and smooth muscles.**	**2**	**Professor Melnik V.A. 09.10.26 08.00-09.25**
6.	**4. NERVOUS REGULATION OF PHYSIOLOGICAL FUNCTIONS General physiology of the central nervous system. Neuron. Nervous centers and their properties. Reflex principle of nervous system functioning. Inhibition in CNS. Principles of coordination activity of CNS.**	**2**	**Professor Melnik V.A. 16.10.26 08.00-09.25**
7.	**4. NERVOUS REGULATION OF PHYSIOLOGICAL FUNCTIONS Particular physiology of the central nervous system.**	**2**	**Professor Melnik V.A. 23.10.26 08.00-09.25**
8.	**4. NERVOUS REGULATION OF PHYSIOLOGICAL FUNCTIONS Particular physiology of the central nervous system Autonomous (vegetative) nervous system.**	**2**	**Professor Melnik V.A. 30.10.26 08.00-09.25**
9.	**5. HORMONAL REGULATION OF PHYSIOLOGICAL FUNCTIONS Endocrine system, its physiological role in the regulation of hormones formation. The mechanisms of hormonal regulation of physiological functions.**	**2**	**Professor Melnik V.A. 06.11.26 08.00-09.25**

10.	**6. PHYSIOLOGY OF RESPIRATION** **External respiration.**	**2**	**Professor** **Melnik V.A.** **13.11.26** **08.00-09.25**
11.	**6. PHYSIOLOGY OF RESPIRATION** **Gas transport by blood, gas exchange between blood and tissues.** **Regulation of respiration.**	**2**	**Professor** **Melnik V.A.** **20.11.26** **08.00-09.25**
12.	**7. PHYSIOLOGY OF THE CARDIOVASCULAR SYSTEM** **Physiological properties and structure of myocardium.**	**2**	**Professor** **Melnik V.A.** **27.11.26** **08.00-09.25**
13.	**7. PHYSIOLOGY OF THE CARDIOVASCULAR SYSTEM** **Cardiac cycle. Polycardiography. Regulation of cardiac activity.**	**2**	**Professor** **Melnik V.A.** **04.12.26** **08.00-09.25**
14.	**7. PHYSIOLOGY OF THE CARDIOVASCULAR SYSTEM** **Haemodynamics. Functional indicators of blood circulation** **Blood circulation regulation** **Regional blood-flow**	**2**	**Professor** **Melnik V.A.** **11.12.26** **08.00-09.25**
15.	**8. PHYSIOLOGY OF DIGESTION.** **Functional system of nutrition** **Digestion in oral cavity and stomach. Digestion in the small and large intestine.**	**2**	**Professor** **Melnik V.A.** **18.12.26** **08.00-09.25**
16.	**9. METABOLISM AND ENERGY. NUTRITION** **Metabolism and energy** **Physiological bases of healthy nutrition** **10. PHYSIOLOGY OF THERMOREGULATION**	**2**	**Professor** **Melnik V.A.** **25.12.26** **08.00-09.25**
17.	**11. PHYSIOLOGY OF EXCRETION.** **Characteristic of excretion.** **Regulation of functions of kidneys.**	**2**	**Professor** **Melnik V.A.** **01.01.26** **08.00-09.25**
	Total amount of hours	**34**	