

**Thematic plan of seminars
in the discipline «Physiology» for students entering in 2025
of the educational program
of the specialty 33.05.01 Pharmacy (specialist's level)
form of study full-time
for the 2025-2026 academic year**

№	Thematic blocks	Practical TB training	Hours (academic)
	2 semester		
1.	Introduction to the subject. Physiology as a science, its basic concepts, and the subject of study. Methods of physiological research. Electrical phenomena in excitable tissues.	III	4
2.	Physiology of excitable tissues. Properties of excitable tissues. Basic laws of excitation of excitable tissues.	III	4
3.	Physiology of muscle tissue. Muscle contraction.	III	4
4.	Motor synapses. Muscle strength and function. Fatigue.	III	4
5.	Control of knowledge, skills, and abilities in the topics "Physiology of excitable tissues" and "Physiology of muscle tissue".		4
6.	General physiology of the central nervous system. Reflex and reflex arc. Properties of nerve centers.	III	4
7.	Inhibition in the central nervous system. Basic principles of reflex activity coordination.	III	4
8.	Particular physiology of the central nervous system.	III	4
9.	The autonomic nervous system. Nervous regulation of autonomic functions.	III	4
10.	Hormonal regulation of physiological functions.	III	4
11.	Physiology of the endocrine glands.	III	4
12.	Control of knowledge, skills, and abilities in the topics "Mechanisms of physiological processes regulation. Physiology of the central nervous system", "Hormonal regulation of physiological functions".		4
13.	Physiology of sensory systems. Concept of analyzers. Visual analyzer.	III	4
14.	Auditory, vestibular, tactile, and taste analyzers.	III	4
15.	Higher nervous activity. Physiology of the conditioned reflex.	III	4
16.	Features of higher human nervous activity.	III	4
17.	Control of knowledge, skills, and abilities in the topics "Physiology of sensory systems" and "Higher nervous activity"		4
18.	Metabolism and energy. Thermoregulation. Nutrition.	III	4
	3 semester		
19.	Properties of the heart muscle.	III	4
20.	Methods of heart examination. ECG.	III	4
21.	Regulation of heart activity.	III	4
22.	Basic principles of hemodynamics.	III	4
23.	Regulation of vascular tone.	III	4
24.	Physiology of the excretory system.	III	4

25.	Control of knowledge, skills, and abilities in the topics "Physiology of the Cardiovascular System" and "Physiology of the Excretory System"		4
26.	Physico-chemical properties of blood.	III	4
27.	Formed elements of blood.	III	4
28.	Hemostasis. Blood types.	III	4
29.	External respiration. Principles of the functional respiratory system organization.	III	4
30.	Regulation of breathing.	III	4
31.	Control of knowledge, skills, and abilities in the topics "Blood Physiology" and "Respiratory Physiology".		4
32.	Digestion in the mouth and stomach.	III	4
33.	The role of the liver and pancreas in digestion. Digestion in the small intestine.	III	4
34.	Digestion in the large intestine. Motor and protective functions of the digestive tract.	III	4
35.	Control of knowledge, skills, and abilities in the topics "Digestion in the mouth and stomach" and "Digestion in the intestines".		4
Total			140

Considered at the meeting of the department of Normal physiology «20th» of May 2025, protocol № 10.

Head of the Department
of Normal physiology

S.V.Klauchek