Exercise plan for second-year students of Pharmacy ED, winter semester, academic year 2024/2025

Human physiology

Tuesday	11.30-13.15 (week 1-15)	

Lp.	Tuesday	Topic	The instructor of the exercises
1	08.10.	Fundamentals of cell electrophysiology - neuron structure, cell membrane structure, types of ion channels, ion pumps. Origin and characteristics of resting potential	mgr M.Bejtka
2	15.10.	Origin and characteristics of the action potential - excitability of the nerve cell, the role of ion channels, the phenomenon of refractory period in the neuron (PhysioEx)	mgr M.Bejtka
3	22.10.	Physiology of skeletal and smooth muscles - mechanism of contraction and regulation of its force	mgr M.Bejtka
4	29.10.	Electrical activity of the heart. Structure and role of the cardiac pacemaker. Influence of the autonomic nervous system on the electrical activity of the heart.	mgr M.Bejtka
5	05.11.	The impact of selected drugs on heart function. A case study	mgr M.Bejtka
6	12.11.	Hemodynamic cycle. Volume - left ventricular pressure curve. Systolic and diastolic arterial pressure. Mean arterial pressure. Orthostatic test. The role of baroreceptors in the regulation of arterial pressure	mgr M.Bejtka
7	19.11.	Regulation of endocrine secretion - hypothalamic-pituitary-thyroid axis. Thyroid hormones - receptors, mechanism of action at the cellular level, systemic effects	mgr M.Bejtka
8	26.11.	Hormonal regulation of blood glucose concentracion.	mgr M.Bejtka
9	03.12.	Blood composition, role of morphotic elements, basic laboratory parameters	mgr M.Bejtka
10	10.12.	Chemical and physical process of digestion. Metabolism	mgr M.Bejtka
11	17.12.	Respiratory system	dr W.Adamczyk
12	07.01.	Respiratory system	dr W.Adamczyk
13	14.01.	Glomerular filtration. Autoregulatory mechanisms in the kidney	mgr M.Bejtka
14	21.01.	Mechanisms responsible for changing the composition of urine. The impact of selected diuretics on kidney physiology and urine compositia.	Dr M.Cieślicka
15	28.01.	Acid-Base physiology.	dr W.Adamczyk

KIEROWNIK KATEDRY FIZJOLOGII CZŁOWIEKA

prof. dr hab. n. med. Wojciech Kaźmierczak