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

Human physiology with elements of clinical physiology

Thursday	**Gr 1B** (12os) 08.00-10.25 (tydz. 2-14) 08.00-10.20 (tydz. 15)	**Gr 1A** (12os) 10.30-12.55 (tydz. 2-14) 10.30-12.50 (tydz. 15)	**Gr 2A** (12os) 13.00-15.25 (tydz. 2-14) 13.00-15.20 (tydz. 15)
Friday	**Gr 3A** (12os) 08.00-10.25 (tydz. 2-14) 08.00-10.20 (tydz. 15)	**Gr 3B** (12os) 10.30-12.55 (tydz. 2-14) 10.30-12.50 (tydz. 15)	**Gr 2B** (12os) 13.00-15.25 (tydz. 2-14) 13.00-15.20 (tydz. 15)

Lp.	Thursday	Friday	Topic	The instructor of the exercises
1	03.10.	04.10.	----------	----------
2	10.10.	11.10.	Fundamentals of cell electrophysiology - neuron structure, cell membrane structure, types of ion channels, ion pumps. Origin and characteristics of resting potential (PhysioEx Transmembrane transport - activity 1, 2, 5)	dr P.Złomańczuk
3	17.10.	18.10.	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)	dr P.Złomańczuk
4	24.10.	25.10.	Synaptic conduction and conduction velocity. voltage clamp and putch-clamp techniques.	dr P.Złomańczuk
5	07.11.	08.11.	Neuron simulation program - review	dr P.Złomańczuk
6	14.11.	15.11.	Sensory phesiology - transduction, receptor potential	dr P.Złomańczuk
7	21.11.	22.11.	Physiology of skeletal and smooth muscles - mechanism of contraction and regulation of its force, part 1	dr P.Złomańczuk
8	28.11.	29.11.	Physiology of skeletal and smooth muscles - mechanism of contraction and regulation of its force, part 2	dr P.Złomańczuk
9	05.12.	06.12.	Functional organization of the brain. Higher CNS functions. Cognitive functions	dr P.Złomańczuk
10	12.12.	13.12.	Vestibular-ocular and vestibulospinal reflexes. The role of the reticular formation in the control of muscle tone	dr K.Dmitruk
11	19.12.	20.12.	Caloric nystagmus, rotatory and post-rotary nystagmus. Examination of vestibulospinal reflexes. Examination of selected spinal reflexes.	dr K.Dmitruk
12	09.01.	10.01.	Blood composition. The role of morphological elements and plasma proteins. Lipid profile	mgr M.Bejtka
13	16.01.	17.01.	Hormonal regulation of blood glucose concentration.	mgr M.Bejtka
14	23.01.	24.01.	Thyroid hormones and metabolism	dr K.Dmitruk
15	30.01.	31.01.	Cortisol and ACTH (sex hormones may also be considered)	mgr M.Bejtka

KIEROWNIK KATEDRY FIZJOLOGII CZŁOWIEKA

prof. dr hab. n. med. Wojciech Kazmierczak