**Course Title: Physiology integrated with Internal Medicine**

**Coordinator /contact: Prof. Agata Ptak - Belowska**

**Address: Chair of Physiology UJ CM**

**Year: 4-6**

**Total number of hours: 15**

**Lectures: -**

**Seminars: -**

**Labs/Practicals: -**

**Others (e.g. recitation): -**

**Student’s Evaluation:**

**credit requirements: attendance**

**attendance requirements: all lectures are mandatory; one absence allowed**

**1st week , on-line**

Jan 7th, 2021 (Thursday) 17.15-19.30 **Prof. Brzozowski/Assoc. Prof. Kwiecien**

Body fluids, transports, electrophysiology, synapses and junctions, skeletal and smooth muscle physiology. Gastrointestinal tract, control of appetite, motility, gastric barrier and defence, secretory functions of salivary gastrointestinal and pancreatic glands, hormonal control of gastric secretion, physiology of gastrin, antiulcer drugs, digestion and absorption, *Helicobacter pylori* infection, intestinal bowel disorders, inflammatory bowel diseases.

**2nd week , on-line**

Jan 14th, 2021 (Thursday) 17.15-19.30 **Prof. Pawlik/Assoc. Prof. Kwiecien**

Cardiovascular system, excitation-contraction coupling, the physiologic basis of the electrocardiogram (ECG), determinants of left ventricular performance and cardiac output, preload, afterload, coronary circulation, control of arterial pressure, baroreceptors microvascular functions, local circulatory control, chemoreceptors, vasodilators and vasoconstrictors.

**3rd week , on-line**

Jan 21th, 2021 (Thursday) 17.15-19.30 **Prof. Jaworek/Assoc. Prof. Majka**

Nervous system, control of body movements, spinal reflexes, central and peripheral control of voluntary movement, sensation pathways, EEG, consciousness and sleep, physiology of hypothalamus, limbic system, localisation and transmission of pain, higher functions of nervous system, learning and memory.

**4th week , on-line**

Jan 28th, 2021 (Thursday) 17.15-19.30 **Prof. Dembinski/Prof. Brzozowski**

Respiratory system, pressure-volume relationships, the work of respiration, ventilation of the lungs, gas transport and exchange, chemoreceptors and the control of respiration, renal blood flow; renal tubular functions, glomerular filtration, hormonal regulation, acid-base balance.

**5th week , on-line**

March 4th, 2021 (Thursday) 17.15-19.30 **Prof. Dembinski/Prof. Agata Ptak-Belowska**

Endocrine system, hypothalamic-pituitary-adrenal axis, release and physiological function of growth hormone (GH), antidiuretic hormone (ADH) and oxytocic hormone, thyroid hormones, adrenal medulla hormones, pancreatic hormones insulin and glucagon, male and female reproductive hormones.