

**Discussed and confirmed  
on the methodical council  
of the histology department  
January 19, 2023.**

**Calendar and Thematic plan of lectures  
on discipline "Histology, Cytology and Embryology"**  
for 1<sup>st</sup> year students, Faculty of General Medicine, Spring semester 2022/2023

<b>№</b>	<b>Topic of the lecture</b>	<b>Date</b>
1	Introduction to Histology, Cytology and Embryology. Eukaryotic cell, functions, reproduction, development, adaptation and recovery of multicellular organisms.	24.01
2	Early human embryogenesis. Periods of embryogenesis. Characteristics of gametes. Gametogenesis. Fertilization. Cleavage. Implantation. Gastrulation.	7.02
3	Introduction to the theory of tissues. Tissue, as a system of histological elements. Cells and their derivatives. Epithelial tissues. Cell therapy as one of the areas of regenerative medicine.	21.02
4	Blood and Lymph. Cells (neutrophils, eosinophils, basophils, macrophages), chemical mediators (chemokines, cytokines, bactericidal proteins and complement system) and inflammation processes in the system of nonspecific protection. Hematopoiesis.	7.03
5	Connective tissues. General characteristics, classification. Cells of loose connective tissue. Resident cells and wandering cells. Classification of tissues with special properties.	21.03
6	Muscular tissues. Properties, classification, structure. Structural bases of growth of muscle fibers. Adaptation of skeletal muscle to the changing of physical activity. Regeneration of skeletal muscular tissue.	4.04
7	Nervous tissue. General characteristics. Sources of development, structure, functional properties and meaning. The concept of neurotransmitters.	18.04
8	Central and peripheral nervous system. General morphofunctional characteristics. Regularities of development. Classification (anatomical and functional).	9.05
9	Sensory systems: types, links, functional meaning. General characteristics of sensory organs. Classification of sensory organs. Structure of the Eye.	23.05

All lectures are given online. Link for each lecture will be available on MISA on the date mentioned.

**In total: 18 hours**

**Chief of the Department  
of Histology and Embryology,  
Assoc. Professor**

**Ilona Chelpanova, Ph.D., M.D.**

**Deputy for Academic work,  
Assoc. Prof.**

**Olga Yuzych, PhD**