

**Discussed and confirmed
on the methodical council
of the department
August 30, 2019.**

**HISTOLOGY INDEPENDENT WORK
for students of Faculty of Dentistry, 1st year,
Autumn semester. Academic year 2019-2020.**

№	Topic	Amount of hours
1	History of Histology, Cytology and Embryology. Histology in Ukraine.	2
2	Microscope. Microscopic devices. Histological techniques.	2
3	Modern methods of histological investigations.	2
4	Intercellular junctions, their types, intercellular interaction.	2
5	Chromatin and Chromosomes. Morphology and chemical structure. Karyotype. Ploidy.	2
6	Life and cell cycle, their characteristics. Apoptosis, its biological and medical meaning. Cell aging and cell death.	2
7	Conception of extracorporal fertilization, its medical and social meaning.	2
8	Cloning of animals. Fertilization vitro, morphological aspects of embryonic transplantation.	2
9.	Law of rise and evolution of tissues. Differentiation, determination, regeneration.	2
10.	Humal blood picture in the norm and white blood cells count. Age-related changes of Blood. Lymph characteristics.	2
11.	Embryonic hemopoiesis (development of blood). Peculiarities of yolk sac and hepatic hemopoiesis. Modern model of hemopoiesis.	2
12	Postembryonic hemopoiesis. Conception of colonies-making units.	2
13	Histogenesis, regeneration and age changes of cartilage.	2
14	Osteogenesis and regeneration of bone.	2
15	Molecular mechanisms of muscle fiber contraction.	2
16	Cytophysiology of conducting system of the heart.	2

In total

32 hours.

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

Alexander Lutsyk, MD, PhD

Deputy for Academic work, Assoc. Prof.

Olga Nakonechna, PhD