"I approve"
Chief of department
of Histology, cytology, embryology and
pathological morphology with a course
of forensic medicine
prof ._____ Sytnikova V.O.
"26" august 2024

Calendar-thematic plan of practical classes in Pathomorphology for applicants of higher education of the 3rd year (V semester) of the Faculty of Medicine for the 2024-2025 academic year.

No	Topic	Number of hours	Groups
	Discipline section 1. General pathomorphology .		
1	Topic 1. Practical lesson 1. The subject and tasks of pathomorphology. Pathomorphological research methods . The main stages of the development of pathomorphology . Elements of ultrastructural cell pathology. Cell-matrix interactions. Morphology of reversible and irreversible damage to cells and tissues. Intracellular accumulation of proteins, carbohydrates and lipids.	2.0	1
2	Topic 2. Practical lesson 2. Morphological changes of the extracellular matrix (stroma) as a response to damage (stromal -vascular dystrophies). Pathomorphology of extracellular accumulation of complex proteins (hyalinosis), fats and lipids. Exhaustion of the body.	2.0	1
3	Topic 3. Practical lesson 3. Violations of metabolism and their metabolism. Morphology of pathological accumulation of endogenous and exogenous pigments. Morphology of mineral metabolism disorder.	2.0	1
4	Topic 4. Practical lesson 4. Necrosis - definition, terms and phases of development, consequences. Clinical and morphological forms of necrosis. Pathological anatomy of multiple organ failure. Fundamentals of Thanatology. Death, mechanisms, signs. Biological, medical, social aspects due to a chronic incurable disease. The concept of thanatogenesis .	2.0	1

	Structural mechanisms of cessation of activity of vital organs during the natural course of the disease. Complications of stopping the work of the heart, lungs , brain, kidneys, liver.		
5	**Topic 5. Practical lesson 5.** **Final lesson. (Subsection Introduction. Morphology of injury and death of cells and tissues). Practical skills.**	2.0	1
6	Topic 6. Practical lesson 6. Acute systemic circulatory disorders (acute coronary insufficiency, shock) and systemic circulatory disorders in chronic heart failure and their consequences. Regional blood circulation disorders (hyperemia, ischemia, plasmarrhagia , bleeding and hemorrhage). Violation of lymph formation and circulation.	2.0	1
7	Topic 7. Practical lesson 7. Violations of hemostasis: hemorrhagic syndrome, thrombosis, DVZ-syndrome. Embolism. Thromboembolism of the pulmonary artery, thanatogenesis .	2.0	1
8	Topic 8. Practical lesson 8. Inflammation : causes, morphogenesis. Pathomorphology exudative inflammation	2.0	1
9	Topic 9. Practical lesson 9. Proliferative (productive) inflammation: with the formation of acute condylomas, around parasitic animals, intermediate productive inflammation, granulomatous inflammation. Specific proliferative inflammation.	2.0	1
10	**Topic 10. Practical lesson 10.** **Final lesson. (Subsection Disorders of blood and lymph circulation. Inflammation). Practical skills.**	2.0	1
11	Topic 11. Practical lesson 11. Molecular and pathomorphological bases of the immune response. The immune system in the prenatal and postnatal period. Pathology of immune processes: amyloidosis, hypersensitivity reactions , transplant rejection reaction. Immune deficiency. Autoimmune diseases.	2.0	1
12	Topic 12. Practical lesson 12. Regeneration. Structural basis of physiological adaptation of organs and cells. Morphology of cell accommodation processes. Compensatory and adaptive processes.	2.0	1
13	Topic 13. Practical lesson 13. Oncogenesis . Anatomical and microscopic features and types of growth of benign and malignant tumors. Morphological characteristics of the main stages of development of malignant tumors. Clinical and morphological nomenclature of tumors. Benign and malignant non-epithelial (mesenchymal) tumors. Sarcoma: features of development and metastasis. Tumors of fibroblastic , myofibroblastic and fibrohistiocytic origin. Tumors from adipose and muscle tissue, tumors from blood vessels.	2.0	1
14	Topic 14. Practical lesson 14. Epithelial tumors: benign organ-nonspecific epithelial tumors, cancer (features of development, metastasis,	2.0	1

	histological forms).		
15	Topic 15. Practical lesson 15. Morphological features of epithelial tumors of individual organs.	2.0	1
16	Topic 16. Practical lesson 16. Nomenclature and morphological features of tumors of nervous tissue. Features of tumors of the central nervous system.	2.0	1
17	Topic 17. Practical lesson 17. Nomenclature and morphological features of tumors originating from melanin-producing tissue.	2.0	1
18	**Topic 18. Practical lesson 18.** **Final lesson. (Subsections Immunopathological processes. Regeneration, processes of adaptation and compensation. Tumors). Practical skills.**	2.0	1

The head of study of the department Assoc. Lytvynenko M.V.