THEMATIC PLAN OF LECTURES IN PATHOLOGICAL PHYSIOLOGY
for 3rd year students of **FIS**
Educational Institution «Gomel State Medical University»
for **V semester 2026/2027 academic year**

№	Name of topics, content of lectures	Number of hours	Date, lector
1.	**Introduction to the discipline "Pathological Physiology". General etiology and pathogenesis.** 1. Subject, tasks, methods of pathological physiology. History of pathophysiology. 2. Basic concepts of general nosology. Typical pathological processes. Disease: classification, stages, outcomes. 3. The role of causes and conditions in the occurrence of diseases. Pathological system. 4. Pathogenesis. Leading links in pathogenesis and "vicious circles".	2	17.09.26 13.00-14.25 Kidun K.A.
2.	**Pathogenic effects of environmental factors on the human body. Stress** 1. Characteristics of the pathogenic effects of physical factors: general characteristics, pathogenesis, manifestations. 2. The concept of crush syndrome. 3. Effects of high and low temperatures: general characteristics, pathogenesis, manifestations. 4. Mechanisms of action of ionizing radiation. Radiosensitivity of cells. 5. Stress and "general adaptation syndrome".	2	01.10.26 13.00-14.25 Kidun K.A.
3.	**Inflammation** 1. Inflammation: etiology, stages. 2. Mechanisms of alteration. Inflammatory mediators. 3. Exudation, mechanisms. Types of exudates. 4. Phagocytosis: types, stages, mechanisms. 5. Proliferation, mechanisms. Stimulators and inhibitors of proliferation. Outcomes of inflammation.	2	15.10.26 13.00-14.25 Kidun K.A.
4.	**Infectious process. Fever** 1. Infectious process: types, general etiology and pathogenesis. 2. Sepsis: etiology, pathogenesis. 3. Etiology of fever. Pyrogens: classification, effects. 4. Pathogenesis of fever. Stages of fever. 5. Biological significance of febrile reaction.	2	29.10.26 13.00-14.25 Kidun K.A.
5.	**Tumor growth. Tumors** 1. Tumor etiology. Physical, chemical, biological carcinogens. 2. Modern concepts of molecular-genetic mechanisms of carcinogenesis. 3. Biological features of tumor growth. 4. Malignant and benign tumors. 5. Interaction between tumor and organism. Antineoplastic resistance.	2	12.11.26 13.00-14.25 Kidun K.A.

Зав. кафедрой нормальной
и патологической физиологии С.Н. Самусева

THEMATIC PLAN OF LECTURES IN PATHOLOGICAL PHYSIOLOGY
for 3rd year students of **FIS**
Educational Institution «Gomel State Medical University»
for **VI semester 2026/2027 academic year**

№	Name of topics, content of lectures	Number of hours	Date, lector
1.	**Pathophysiology of blood** 1. Anemia: definition, classifications, general characteristics. 2. Dyserythropoietic anemias: etiology, pathogenesis, manifestations. 3. Hemolytic anemias: etiology, pathogenesis, manifestations. 4. Leukocytosis and leukopenia: types, etiology, pathogenesis. 5. Leukemia: principles of classification, etiology, pathogenesis.	2	Kidun K.A.
2.	**Pathophysiology of the cardiovascular system** 1. Primary arterial hypertension: etiology, pathogenesis. 2. Secondary arterial hypertension: types, causes, development mechanisms. 3. Arterial hypotension: classification, etiology, pathogenesis. 4. Atherosclerosis: causes, development mechanisms, risk factors 5. Main forms of cerebrovascular accidents	2	Kidun K.A.
3.	**Pathophysiology of external respiration. Pathophysiology of the digestive system.** 1. Respiratory failure, principles of classification, etiology, pathogenesis. 2. Obstructive and restrictive types of ventilation disorders: etiology, pathogenesis. 3. Etiology, pathogenesis of pulmonary capillary blood flow disorders and alveolo-capillary diffusion. 4. General etiology, pathogenesis of digestive system disorders. 5. Etiology, pathogenesis of gastric ulcer and duodenal ulcer.	2	Kidun K.A.
4.	**Pathophysiology of the liver. Pathophysiology of the kidneys.** 1. Jaundice: classification, main manifestations. Cholemic and acholic syndromes. 2. Etiology, pathogenesis, manifestations of liver failure. 3. Etiology, pathogenesis of liver cirrhosis. 4. Changes in diuresis, urine composition. 5. Diffuse glomerulonephritis: etiology, pathogenesis.	2	Kidun K.A.

	6. Nephrotic syndrome.		
5.	**Pathophysiology of the endocrine system. Pathophysiology of the nervous system.** 1. Disorders of the cortical-hypothalamic-pituitary regulation of endocrine glands. 2. Primary disorders of hormone synthesis in peripheral endocrine glands. 3. Etiology, pathogenesis of typical forms of endocrinopathies. 4. Etiology, pathogenesis of typical forms of nervous system disorders. 5. Pain.	2	Kidun K.A.