Summary of the working program of the academic discipline

«PATHOLOGICAL PHYSIOLOGY, CLINICAL PATHOPHYSIOLOGY»

General Educational Program of higher education **31.05.01 GENERAL MEDICINE**

Department: **PATHOLOGICAL PHYSIOLOGY**

1. The purpose of mastering the discipline: participation in forming the relevant competencies UC 1, GPC 1, GPC 5, PC 1, PC 2, PC 6.

2. Position of the academic discipline in the structure of the General Educational Program (GEP).

2.1. The discipline refers to the core part of Block 1 of GEP HE (Academic discipline index B.1. O.22.).

3. Deliverables of mastering the academic discipline and metrics of competence acquisition

Mastering the discipline aims at acquiring the following universal (UC) or/and general professional (GPC) or/and professional (PC) competencies

№	Competence code	The content of the competence (or its part)	Code and name of the competence acquisition metric	As a result of mastering the discipline, the students should:		
				to know	to be able to	to possess
1.	UC-1.	UC-1. Able to carry out critical analysis of problem situations based on a systematic approach, develop an action strategy	1.1 Knows: methods of critical analysis and evaluation of modern scientific achievements; basic principles of critical analysis 1.2 Able to: gain new knowledge based on analysis, synthesis, etc.; collect data on complex scientific problems related to the professional field; search for information and solutions based on actions, experiment and experience	the importance of pathophysiology for the development of medicine and public health; connection of pathophysiology with other medical-biological and medical disciplines	to solve professional tasks of a doctor based on pathophysiological analysis of specific data on pathological processes, conditions, reactions and diseases	principles of evidence-based medicine based on the search for solutions using theoretical knowledge and practical skills
2.	GPC-1.	GPC-1. Able to implement moral and legal norms, ethical and deontological principles in professional activities	1.1 Knows: basics of medical ethics and deontology; fundamentals of legislation in the field of healthcare; legal aspects of medical practice	fundamentals of medical ethics and deontology based on knowledge of the etiopathogenesis of diseases	solve professional tasks of a doctor based on pathophysiological analysis using ethical and deontological principles	fundamentals of medical ethics and deontology based on knowledge of the etiopathogenesis of diseases
3.	GPC-5.	GPC-5. Able to assess morphofunctional	5.1 Knows: anatomy, histology,	features of general	evaluate the main	skills in analyzing

		physiological conditions and pathological processes in the human body to solve professional problems	embryology, topographic anatomy, physiology,pathological anatomy and physiology of human organs and systems	pathophysiology, pathological physiology of human organs and systems	morpho-functional data, physiological states and conditions of the human body. pathological processes in the human body	basic morpho-functional data in various pathological processes in the body
4.	UC-2.	UC-2. Able to manage the project at all stages of its life cycle	2.1 Knows: methods for presenting and describing the results of project activities; methods, criteria and parameters for evaluating the results of project implementation; principles, methods and requirements for the project work	etiology, pathogenesis and clinical picture, features of the course complications and outcomes of diseases of internal organs; clinical signs of sudden cessation of blood circulation and / or respiration	identify clinical signs of conditions that require emergency medical care; identify conditions that require emergency medical care, including clinical signs of sudden cessation of blood circulation and respiration determine the list of laboratory and instrumental research methods for evaluation patient's condition, basic medical indications for conducting research and interpretation	assessment skills to determine clinical signs of sudden cessation of blood circulation and / or breathing
5.	UC-6.	ПК-6 Able to refer the patient for laboratory and instrumental examination	6.1 Knows: the importance of planning long-term goals of activity taking into account conditions, means, personal opportunities, stages of career growth, time perspective of development of activity and requirements of the labor market; technology and methodology of self-	basic methods and results of laboratory and instrumental studies in order to recognize the condition or establish the fact of the presence or absence of a	conduct a pathophysiological analysis of clinical, laboratory, experimental, and other data and formulate a conclusion based on them about the most	skills in pathophysiological analysis of examination results, laboratory, instrumental and other studies

			assessment; basic principles of self-education	disorder	likely causes and mechanisms of the development of patholo-gical processes	

4. Volume of the academic discipline and types of academic work

Total labor intensity of the discipline is 8 CU (288 AH)

Type of educational work	Labor intensity		Labor intensity (AH) in semesters			
	volume in credit units (CU)	volume in academic hours (AH)	**5**		**6**	
Classroom work, including	**3,6**	**128**	**84**		**44**	
Lectures (L)		26	18		8	
Laboratory practicum (LP)*						
Practicals (P)		102	66		36	
Seminars (S)						
Student's individual work (SIW)	**2,4**	**88**	**60**		**28**	
Mid-term assessment						
exam	**1**	**36**			**36**	
TOTAL LABOR INTENSITY	**7**	**252**	**144**		**108**	

5. Sections of the academic discipline and competencies that are formed

№	**Competence code**	**Section name of the discipline**	**The content of the section in teaching units**
1	**UC 1, GPK 1,5 PK 2,6**	General pathophysiology	Subject and tasks of pathophysiology. Basic concepts of nosology. Pathogenic effect of environmental factors. Modeling of pathological processes. Acute non-specific cell injury. Disorders of peripheral blood circulation and microcirculation. Barrier functions of the body and their disorders. Acute inflammation. Chronic inflammation. Pathophysiology of temperature homeostasis. Fever. Hyperthermia (overheating). Hypothermia (overcooling). Pathophysiology of water-salt metabolism. Edema. Pathophysiology of the acid-base balance. Tumor growth. Hypoxia. Pathophysiology of metabolism.
2	**UC 1, GPK 1,5 PK 2,6**	Pathophysiology of organs and systems	Pathophysiology of red blood cells. Pathophysiology of white blood cells. Leukemia. Pathophysiology of hemostasis. Pathophysiology of external respiration. Pathophysiology of the cardiovascular system. Heart failure. Ischemic heart disease. Cardiac arrhythmias. Vascular tone pathophysiology: arterial hypertension and hypotension. Pathophysiology of the gastrointestinal tract. Peptic ulcer disease.

			Pathophysiology of the liver. Jaundice. Pathophysiology of the kidneys. Pathophysiology of the endocrine system. Pathophysiology of the nervous system. Pathology of the central nervous system and higher nervous activity. Pathology of the autonomic nervous system. Violation of trophic function of the nervous system. Pain.