Summaryof the working program of the academic discipline

«HISTOLOGY, EMBRYOLOGY, CYTOLOGY»

(name of the academic discipline)

General Educational Program of higher education (specialist's degree programs)
31.05.01 GENERAL MEDICINE
Department: **HISTOLOGY WITH CYTOLOGY AND EMBRYOLOGY**

1. The purpose of mastering the discipline (*participation in the formation of relevant competencies)***:**

- Able to carry out a critical analysis of problem situations based on a systematic approach, develop an action strategy (UC-1)
- Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems (GPC-5);
- Able to understand the principles of modern information technologies and use them to solve the tasks of professional activity (GPC-10).

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

2.1. The discipline **"Histology, embryology, cytology"** refers to the core part of Block 1 of GEP HE (B1.C.16).

The discipline is taught in 2-3 semester/1-2 year of study.

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:		
				know	be able to	possess
1.	UC-1	Able to carry out a critical analysis of problem situations based on a systematic approach, develop an action strategy	IC UC-1.1 Knows: methods of critical analysis and evaluation of modern scientific achievements; basic principles of critical analysis IC UC-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 action, experiment and experience IC UC-1.3 Has practical experience: researching the problem of	Methods of critical analysis and evaluation of modern scientific achievements in the field of histological research; basic principles of critical analysis	To gain new knowledge based on analysis, synthesis, etc.; to collect data on complex scientific problems related to the professional field; to search for information and solutions based on actions, experiment and	Practical experience: research of the problem of professional activity with the use of analysis, synthesis and other methods of intellectual activity; development of an action strategy for solving professional

			professional activity using analysis, synthesis and other methods of intellectual activity; developing an action strategy to solve professional problems		experience	problems
2.	GPC-5	Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	IC1 GPC-5.1 Knows: anatomy, histology, embryology, topographic anatomy, physiology, pathological anatomy and physiology of human organs and systems IC2 GPC 5.2 Able to: evaluate the basic morphological and functional data, physiological conditions and pathological processes in the human body IC2 GPC 5.3 Has practical experience in: assessment of basic morphological and functional data, physiological conditions and pathological processes in the human body when solving professional problems	Basic laws of development, structure and vital activity of the human body based on the structural and functional organization of cells, tissues and organs; methods of histological examination; systemic properties in the relationship of structural elements of the human body; knowledge of basic natural science and, in particular, medical terminology.	To work with a light microscope; to give a histophysiological assessment of the state of various cellular, tissue and organ structures in humans; to use educational and scientific literature, the Internet for professional activities.	The technique of light microscopy of histological preparations; the skills of describing histological preparations and electronic microphotographs.
3.	GPC-10	Able to understand the principles of modern information technologies and use them to solve the tasks of professional activity	IC1 GPC10.1 Knows: the capabilities of reference information systems and professional databases; methods of information retrieval, information and communication technologies; modern medical and biological terminology; fundamentals of information security in professional activities IC2 GPC10.2 Able to:	Possibilities of reference information systems and professional databases; methods of information retrieval, information and communication technologies; basic natural science and,	To apply modern information and communication technologies in the study of the subject; to carry out an effective search for information necessary for the study	The skills of using modern information and bibliographic resources, the use of special software and automated information systems to solve

			apply modern information and communication technologies to solve the tasks of professional activity; carry out an effective search for information necessary to solve the tasks of professional activity using reference systems and professional databases; use modern medical and biological terminology; master and apply modern information and communication technologies in professional IC3 GPC10.3 Has practical experience in the use of modern information and bibliographic resources, the use of special software and automated information systems to solve standard tasks of professional activity, taking into account the basic requirements of information security	in particular, medical terminology.	of histology using reference systems and professional databases; to use modern medical and biological terminology; to master and apply modern information and communication technologies in educational activities, taking into account the basic requirements of information security	educational tasks, taking into account the basic requirements of information security

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

Total labor intensity of the discipline is **6** CU (**216** AH)

Type of educational work	Labor intensity		Labor intensity (AH) in semesters			
	volume in credit units (CU)	volume in academic hours (AH)	2	3		
Classroom work, including	**3,4**	**108**	**54**	**54**		
Lectures (L)	1,0	26	14	12		
Laboratory practicum (LP)*						
Practicals (P)	2,4	82	40	42		
Seminars (S)						
Student's individual work (SIW)	**1,6**	**72**	**36**	**36**		
Mid-term assessment						
credit/exam *(specify the type)*	**1,0**	**36**		**36**		

TOTAL LABOR INTENSITY	**6,0**	**216**	**90**	**126**		

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 GPC-5 GPC-10	Cytology	Methods and techniques of histological studies. Cells. Intercellular substance.
			The structure of the cytoplasm.
			The nucleus. Cell reproduction
2.	UC-1 GPC-5 GPC-10	Human Embryology	Basis of human embryology.
1-2	UC-1 GPC-5 GPC-10	Cytology and embryology	***Current monitoring***
3.	UC-1 GPC-5 GPC-10	General histology	Epithelial tissue
			Connective tissues
			Muscle tissue
			Nervous tissue
			Current monitoring
4.	UC-1 GPC-5 GPC-10	Special histology	Cardiovascular system
			Hematopoietic and lymphatic organs
			Digestive system
			Current monitoring
			Endocrine system
			Urinary system
			Male reproductive system
			Female reproductive system
			Fetal membranes and provisional organs
			Current monitoring