

ABSTRACT OF ELECTIVE COURSE

CLINICAL BIOCHEMISTRY

*for training specialists of the second (master's) degree of higher education
educational qualification "master's degree of Pharmacy"*

field of knowledge 22 "Healthcare"

specialty 226 "Pharmacy, industrial pharmacy"



Abstract of the discipline: EIC 31 "Clinical biochemistry" belongs to the cycle of disciplines of natural science (fundamental) training of specialists in specialty 226 "Pharmacy, Industrial Pharmacy".

Number of ECTS credits – 3. **Final examination** – control test.

Objectives: Formation of a system of knowledge and practical skills among applicants for higher education regarding the basic laws of chemical composition and human metabolism at normal and pathological conditions, principles of clinical and biochemical diagnostics of various pathological conditions. The discipline is a connecting link between theoretical and clinical disciplines that form the profile of a pharmacy master's degree.

Main objectives: to know the biochemical aspects of enzymopathies, endocrinopathies, vitamin deficiency; to get acquainted with the theoretical concept of clinical biochemistry and laboratory diagnostics of the common pathological conditions: diseases of the liver, kidneys, cardiovascular system, gastrointestinal tract, etc.; to have practical skills in assessing the level of biomolecules and physiologically active substances for the diagnosis of pathological processes.

Competencies that the discipline contributes to:

Integral competence (IC): - The ability to solve problems and understand and solve practical problems of a research and innovation in the field of pharmacy.

General competences (GC):

GC 02. Ability to abstract thinking, analysis and synthesis.

GC 03. Knowledge and understanding of the academic subject and professional activity.

Special (Professional, subject) competencies (SC):

SC 01. Ability to collect, give an explanation and apply data necessary for professional activities, conduct research and implement innovative projects in the field of pharmacy.

SC 07. Ability to conduct sanitary and educational work among the population in order to prevent common diseases, prevent dangerous infectious, viral and parasitic diseases. The ability to timely detect these diseases, maintain adherence to treatment in accordance with their medical, biological, and microbiological characteristics.

Learning program outcomes

LPO 01. To apply specialized knowledge, abilities and skills from general and professional disciplines in professional activities.

LPO 02. Critically reflect on scientific and applied problems in the field of pharmacy.

LPO 07. Demonstrate the ability to independently search, analyze and synthesize information from various sources, including professional literature, patents, databases; evaluate this information using statistical analysis; apply search results to solve typical and complex specialized tasks of professional activity, including the development and production of medicines.

LPO 15. Formulate, argue, clearly and specifically convey to specialists and non-specialists, higher education students information based on their own knowledge and professional experience, the main trends in the development of world pharmacy and related industries.

LPO 25. Choose biological objects for analysis, determine xenobiotics and their metabolites in biological environments and evaluate the results obtained taking into account their distribution in the body.

Developer: Department of Medical and Biological Chemistry (Head of department, profesor, d.med.s. Andriy MELNYK)