

The name of the elective study discipline	Actual problems of clinical pathophysiology
Teacher – developer of the working program	Professor of the Department of Medical Biology and Physics, Microbiology, Histology, Physiology and Pathophysiology Mykola Klymenko, MD, PhD (med.), D.Sc. med.
Relevance and importance of studying the discipline	<p>Dear students,</p> <p>Our experience (of your senior colleagues) shows that senior medical students have a new meaningful interest in understanding the basics of the disease for the most adequate treatment, i.e., to study the etiology and pathogenesis of diseases and principles and methods of therapy (pathological physiology). At the same time, they feel that, in addition to the knowledge of experimental pathophysiology obtained in the third year, knowledge of clinical pathophysiology is also needed. Clinical pathophysiology is a part of pathological physiology, which studies the general and special patterns of occurrence and development of pathological processes and diseases in clinical conditions (in patients), develops and applies functional tests to improve the diagnosis of human diseases, develops pathogenetic principles and methods of human disease prevention and treatment.</p> <p>Moreover, at present it is very important to deepen knowledge of pathophysiology. The current stage of development of medicine and pharmacy requires from doctors a deep knowledge of general and special mechanisms of disease, new pathogenetically based principles and methods of treatment. Due to the achievements of science, modern pharmacotherapy is pathogenetic and, moreover, targeted – based on the deep, molecular genetics mechanisms of disease. Obtaining such knowledge will meet modern standards of training of doctors and will significantly improve the quality of treatment of patients.</p> <p>Therefore, it is actual and important to study the general and special mechanisms of human diseases at the special department, which is the Department of Medical Biology and Physics, Microbiology, Histology, Physiology and Pathophysiology of PMBSNU, by studying the elective course "Actual problems of clinical pathophysiology" for 5th year students. The Department of Medical Biology and Physics, Microbiology, Histology, Physiology and Pathophysiology of PMBSNU is one of the first departments in the system of higher medical education in Ukraine, which provides the study of clinical pathophysiology. It aims to provide modern, in-depth and extensive knowledge of the pathogenesis and pathogenetic therapy of human diseases, and, accordingly, to increase the ability of future physicians to adequately treat patients.</p>
Description of the academic discipline	<p>The discipline "Actual problems of clinical pathophysiology" absorbs the most important topics of clinical pathophysiology, which are important for understanding the pathogenesis and principles and methods of pathogenetic treatment of many nosological units. These topics were selected from many of them by very careful selection, taking into account the need for general practitioners. They include:</p> <ul style="list-style-type: none"> - immunodeficiencies, allergy; - cell damage, inflammation, wound healing; - blood loss, traumatic disease, pain;

	<ul style="list-style-type: none"> - infectious process, intoxication; - stress, extreme states; - tumors; - disorders of various types of metabolism; - disorders of the hemostasis system; - etiology and pathogenesis of the most common diseases of various organs and systems, etc. <p>The program is designed for future physicians of therapeutic, surgical, pediatric, obstetrics and gynecology profiles. It pays great attention to the profiling of training, aimed at in-depth study of the mechanisms of pathological processes and diseases, especially important and widespread in the relevant profile.</p> <p>The discipline consists of lectures and practical classes, the purpose of which is an in-depth study of the most common typical pathological processes, i.e., the processes that underlie many nosological units.</p> <p>The discipline consists of 3 credits, i.e., of 90 academic hours. Among them, there are 32 hours of classroom classes (including 16 hours of lectures and 16 hours of practical classes) and 58 hours of independent work of students. In addition, there are 2 hours of final control (credit).</p> <p>Lectures are given with the presentation of demonstration material in the form of multimedia presentations. Practical classes are held in the form of group discussions on situational tasks and tests. The credit takes the form of testing and an interview.</p>
Expected results of studying the discipline	<p>After studying the discipline "Actual problems of clinical pathophysiology" the student / future doctor will:</p> <ol style="list-style-type: none"> a. have an idea of the pathological processes occurring in the body, the nature of compensatory mechanisms, the principles of choosing rational pathogenetically based methods of therapeutic treatment and the best options for surgery. b. know: <ul style="list-style-type: none"> - etiology and pathogenesis of diseases; - origin and mechanisms of disease symptoms; - the relationship between the pathogenesis of the disease and its clinical manifestations; - methods of functional diagnostics to assess the degree of dysfunction of an organ or system; - optimal methods of pathogenetic therapy. c. be able to: <ul style="list-style-type: none"> - choose the best methods of pathogenetic therapy and justify them; - correctly interpret the data of methods of functional diagnostics; - correctly assess the degree of dysfunction of organs and systems; - evaluate the specific and nonspecific reactivity of the patient and take into account its features when choosing adequate treatment methods, the most optimal in general and for each specific patient in particular.