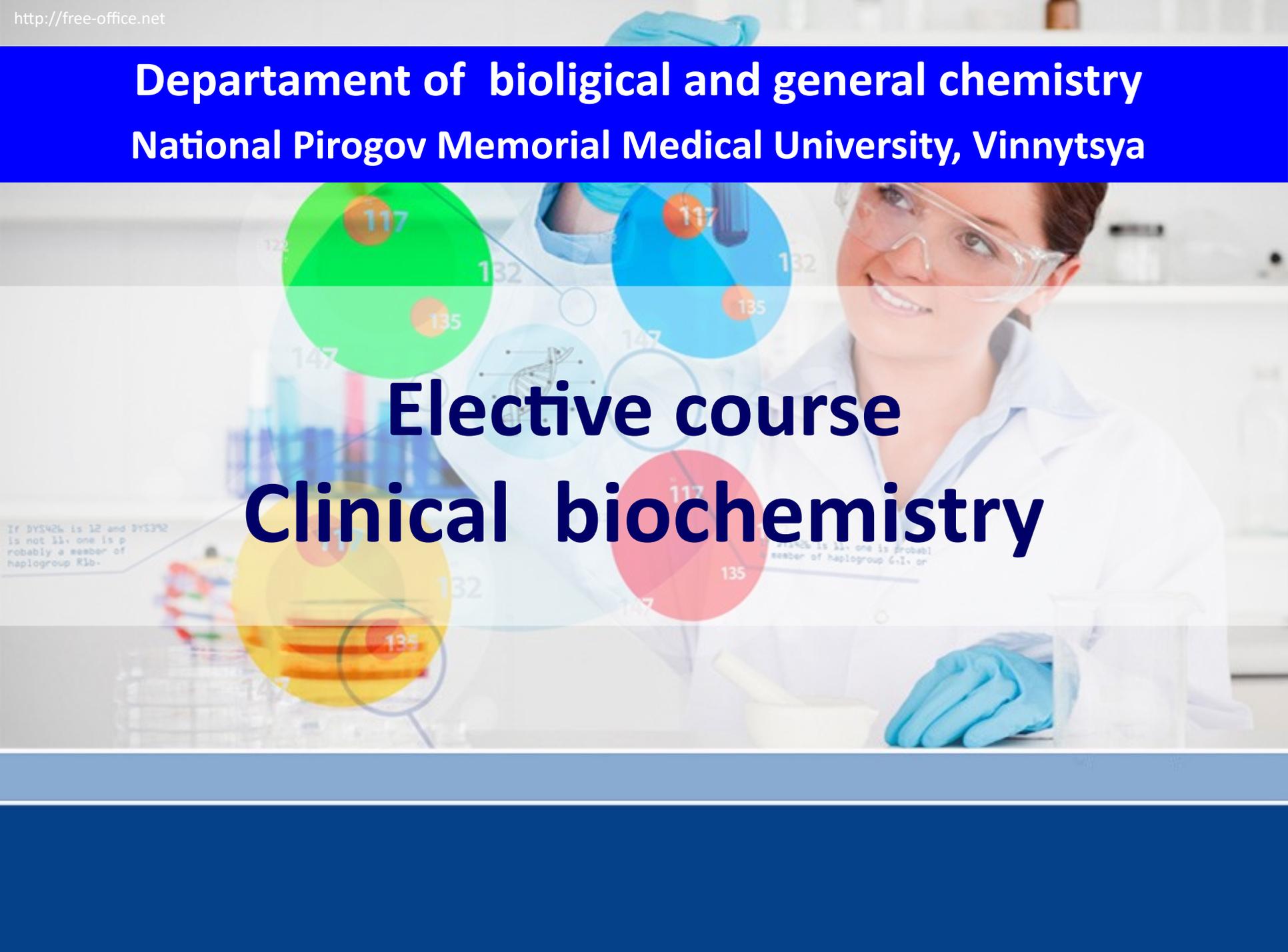


**Department of biological and general chemistry  
National Pirogov Memorial Medical University, Vinnytsya**



# **Elective course Clinical biochemistry**

# Relevance of studying of elective course

**Laboratory medicine** is a set of chemical, molecular and cellular concepts and technologies used to understand and assess a patient's health

**Results of laboratory researches (by WHO, IFCC, EFLM, ВАКХЛМ)**

- make up about **90%** of the objective data of medical records
- determine about **60-70%** of medical decisions
- determine about **35-40%** of the recommendations in the clinical guidelines and define about **25%** of the differential diagnosis
- the quantity and quality of laboratory tests every 5 years increased 2-fold (WHO)

**Clinical biochemistry is one of the important components laboratory medicine, the most rapidly updated**



# The purpose of studying elective course is



- Formation of a system of knowledge and practical skills in applicants of higher education on the basic laws of chemical composition and metabolism in humans in normal and in pathology, the principles of clinical and biochemical diagnosis of various pathological conditions.



# Tasks of course



- *students gaining knowledge, skills and abilities in the field of biochemical, molecular-biological mechanisms of the functioning of the human body in normal conditions and in pathological conditions (enzymopathies, metabolic disorders, dysvitaminosis, etc.)*
- *mastering the skills of diagnosing pathological processes based on the determination of biomolecules and physiologically active substances*
- *personalized assessment of the risk of pathology based on the analysis of the results of clinical and biochemical studies*
- *monitoring development of diseases, identify predictors of treatment*



# The results of clinical biochemistry studying

**Knowledge of pathobiochemical aspects  
enzymopathies,  
endocrinopathies,  
vitamin deficiency**

**Mastering the theoretical foundations  
of pathobiochemistry of the most common  
pathological conditions (diseases of the  
liver, kidneys, cardiovascular system,  
gastrointestinal tract)**

**Using the results of clinical and  
biochemical studies  
to monitor the effectiveness  
and safety of treatment**

**Interpretation of biochemical changes  
in the human body  
in various pathological conditions**

**Practical skills of the routine  
clinical and biochemical researches,  
acquaintance with  
the modern laboratory methods**





We invite you to join the course  
"Clinical Biochemistry"

