

ANNOTATION
work program of the discipline
"Fundamental Medicine"

Speciality	General Medicine 05/31/01
Number of credits	In accordance with the RUP
Interim certification form (test/ test with assessment/exam)	test

1. The purpose of studying the discipline: updating knowledge on fundamental medical educational disciplines from the point of view of interdisciplinary interaction, as well as to assess the degree of readiness of students for the consolidated mastery of clinical disciplines.

2. Brief With maintaining discipline

Section 1. Histology, embryology, cytology. Microscopic functional morphology and development of cellular, tissue and organ systems of the human body.

Section 2. Clinical biochemistry. The chemical nature of the substances that make up living organisms, their transformations, the connection of these transformations with the activity of organs and tissues, the regulation of metabolic processes and the consequences of their violation.

Section 3. Biophysics. Application of the fundamentals of medical and biological physics in fundamental medicine, biomechanics, including mechanical vibrations and waves, acoustics, bioelectrogenesis, the occurrence of resting potentials, actions and electrography methods.

Section 4. Pharmacology. Selection of effective and safe drugs, taking into account their pharmacodynamics and pharmacokinetics, analysis of the action of drugs based on the totality of their pharmacological effects, mechanisms and localization of action, pharmacokinetic parameters, possible side and toxicological manifestations when using drugs.

Section 5. Human anatomy. Human anatomy and topographic anatomy, the structure of both the body as a whole and individual organs and systems.

Section 6. Pathophysiology. Structural changes at the level of the body, organs, tissues, cells, ultrastructures, molecules, genes in diseases, recovery processes; etiology, pathogenesis, morphogenesis, pathomorphosis of these changes; comparison of morphological changes with the results of clinical, biochemical, pathophysiological, microbiological, immunological, cytogenetic studies.

Section 7. Pathological anatomy. Clinical thinking based on clinical and anatomical comparisons, the structural basis of diseases, their etiology and pathogenesis, development dynamics, algorithm of medical practice in solving professional and medical problems.

Section 8. Clinical microbiology. The essence of microbiological, molecular genetic, immunological methods for diagnosing diseases, areas of their application, principles of interpretation of the results obtained.

Section 9. Normal physiology. Patterns of functioning and mechanisms of regulation of cells, organs and systems of a healthy body, the basis of modern methods for diagnosing the functional state of a person used in medicine.