

Annotation of the work program of the discipline

"Clinical Biochemistry"

The main professional educational program of higher education is a specialty program in the specialty 31.05.01 - General Medicine, approved on 24.05.2023 (educational program partially implemented in English)

Form of education: full-time

The term for mastering the discipline of OPOP VO: 6 years

Department: Biological Chemistry

1. The purpose of the discipline: mastering the discipline "Clinical biochemistry"
2. The place of the discipline in the structure of OBOP VO: the discipline refers to the discipline of choosing the variable part of Block 1 of the Federal State Educational Standard of Higher Education.
3. Requirements for the results of mastering the discipline:

The process of studying the discipline is aimed at the formation and development

competencies: GPC-7; PC-7; PC-21; PC-22

As a result of studying the discipline, the student

must

Know:

1. biochemical processes underlying the vital activity of a healthy organism.
2. molecular mechanisms of disorders leading to the development of pathological conditions.
3. biochemical functions of individual organs, tissues and especially molecular processes in them (liver, kidney, myocardium, lungs, blood cells, connective tissue);

Be able to:

- to organize a workplace for biochemical research;
- prepare samples for biochemical research;
- work on biochemical analyzers in accordance with the rules of their operation;
- to control the quality of the analytical stage of the research performed;
- to organize the performance of biochemical research in accordance with the requirements for labor protection, sanitary and epidemiological requirements;
- to draw up accounting and reporting documentation for biochemical research, provided for by the current regulatory documents;
- to assess the clinical significance of the results of biochemical studies;

- to analyze the discrepancy between the biochemical diagnosis and clinical and pathological diagnoses, identify errors and develop measures

to improve the quality of diagnostic work;

- draw up a plan for laboratory examination of a patient at the stage of prevention, diagnosis and treatment of the most common diseases of the cardiovascular, digestive, urogenital and other systems;

Own:

the methodology for performing the most common types of biochemical studies;

- technology for performing biochemical express research;

- technology for organizing and performing quality control of biochemical studies;

- methods of drawing up a plan for biochemical examination of patients and interpreting research results at the stages of prevention, diagnosis and treatment of the most common diseases of the cardiovascular, digestive, urogenital and other conditions;

- the technology of interaction with the staff of clinical departments on the issues of biochemical examination of patients;

4. The total labor intensity of the course: is 2 credit units (72 hours).

5. Semester: 12

6. The main sections of the discipline:

1. Biochemistry and pathobiochemistry of the liver.

2. Biochemistry and pathobiochemistry of the kidneys

3. Blood biochemistry.

4. System of hemostasis. Coagulological syndromes.

5. Pathobiochemistry of carbohydrate metabolism

6. Pathobiochemistry of lipid metabolism

Head of Department of Biological Chemistry

ph.d. assistant professor



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