

No. LD-21

**Annotation of the educational practice program "PRACTICE FOR
OBTAINING PRIMARY RESEARCH SKILLS"**

The main professional educational program of higher education - specialty
programs in the specialty 31.05.01 General medicine, approved
25.12.2020

Full-time form of education

Term of mastering the OBOP VO: 6 years

Department: Internal Diseases No. 1, Surgical Diseases No. 1

1. Purpose of the practice: the formation of important professional skills in patient examination, the foundations of clinical thinking, as well as medical ethics and deontology.

2. Place of practice in the structure of the PLO: educational practice "Clinical practice (caring for patients with a therapeutic and surgical profile)" refers to block 2 of the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine"

3. Requirements for the results of mastering practice:

The process of studying practice is aimed at the formation and development of competencies: OPK-1, OPK-5, OPK-6, PC-1, PC-2, PC-6.

As a result of studying the practice, the student must

Know: **Chemistry**

- thermodynamic and kinetic laws that determine the flowchemical and biochemical processes;
- physicochemical aspects of the most important biochemical processes and varioustypes of homeostasis in the body: theoretical foundations of bioenergetics, factors affecting the displacement of the balance of biochemical processes;
- ways of expressing the concentration of substances in solutions, methods of preparation solutions of a given concentration;
- mechanisms of action of the body's buffer systems, their relationship and role in maintaining acid-base homeostasis; features of the acid-base properties of amino acids and proteins;
- regularities of the course of physical and chemical processes in living systems withthe point of view of their competition arising from the combination of different types of equilibria;
- the role of colloidal surfactants in assimilation and transferlow-polarity substances in a living organism;
- structure and chemical properties of the main classes of biologically important biological compounds;
- the role of biogenic elements and their compounds in living systems;
- physical and chemical foundations of surface phenomena and factors affecting free surface energy;
- features of adsorption at various phase boundaries;
- physical and chemicalmethods of analysis in medicine (titrimetric, electrochemical, chromatographic, viscometric).

Be able to:

- use physical and chemical equipment;
- work with magnifying equipment (microscopes, optical and simplemagnifiers);
- classify chemical compounds based on their structuralformulas;
- to predict the results of physical and chemical processes occurring in

- living systems, based on theoretical provisions;
- scientifically substantiate the observed phenomena;
- make physicochemical measurements that characterize certain properties of solutions, mixtures and other objects that simulate the internal environment of the body;
- monitor the progress of chemical reactions and draw reasoned conclusions;

Biology

Know:

- general laws of the origin and development of life, properties of biological systems, human anthropogenesis and ontogenesis; know the basic laws of the evolutionary transformation of organs and systems of human organs;
- laws of genetics and its importance for medicine; modern methods of studying human genetics; principles of medical genetic counseling; patterns of heredity and variability in individual development as the basis for understanding the pathogenesis and etiology of hereditary and multifactorial diseases;
- biosphere and ecology, basic properties of ecosystems, ecological laws and rules, peculiarities of anthropobioecosystems, influence on the human body of biotic, abiotic and social factors, human adaptation to the environment, the phenomenon of parasitism and bioecological diseases;

Be able to:

- use laboratory equipment, work with a microscope;
- to determine the mitotic activity of tissues;
- explain the nature of deviations in the course of development leading to the formation of variants, anomalies and defects;
- to identify human parasites on micro- and macro-preparations

Physics

Know:

- Environmental and ethical aspects of the effects of physical factors on human health.
- Fundamentals of the application of physical factors for diagnosis and treatment: ultrasound, sound, electromagnetic waves, radionuclides, ionizing radiation.
- Physical parameters characterizing the functional state of organs and fabrics: mechanical, electrical, electromagnetic, optical.
- Physical phenomena and processes underlying life of an organism and their characteristics.
- Safety regulations when working with physical devices

Уметь:

- Измерять физические параметры и оценивать физические свойства – биологических объектов с помощью механических, электрических и оптических методов.

4. Общая трудоемкость практики составляет 5 зачетные единицы (180 часов)

- **5. Семестр:** 1

- **6. Основные разделы практики:**

- 1. Общие вопросы ухода за больными терапевтического и хирургического профиля .
- 2. Частные вопросы ухода за больными терапевтического и хирургического профиля с патологией различных систем и органов.

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