

**The planned schedule of practical unit by "Basic of Functional Diagnostics"
on 6 semester 2025 – 2026 of academic year for Medical faculty**

№	Name of the practical lesson	Watch	List of study questions
1.	Fundamentals of functional diagnostics.	2	<ol style="list-style-type: none"> 1. Definition of the concept of “functional diagnostics”. 2. Main tasks, methods and types of functional diagnostics. 3. Definition of the concept of “functional state”. 4. Key indicators characterizing the functional state. 5. Introduction to the subject. Main goals and objectives of functional diagnostics. Methods of functional diagnostics
2.	Principles of functional diagnostics of the blood system.	2	<ol style="list-style-type: none"> 1. Principles of identifying morphological and functional disorders of systems and organs. 2. Homeostatic constants of blood, methods of their assessment. 3. Laboratory methods for studying formed elements of blood, determining blood groups and assessing group compatibility. 4. Methods of functional diagnostics of the blood hemostasis system: determination of dynamic indicators, content of coagulation and anticoagulation factors , hemostatic potential.
3.	Principles of functional diagnostics of the cardiovascular system. Methods for assessing cardiac activity.	2	<ol style="list-style-type: none"> 1. Clinical and physiological indicators of cardiac contractility. Analysis of heart sounds. 2. Ultrasound methods of functional diagnostics of the heart. 3. Electrophysiological methods of cardiac examination: electrocardiography, vectorcardiography . Physiological foundations of electrocardiography.
4.	Principles of functional diagnostics of the cardiovascular system. Indicators and methods for assessing hemodynamics	2	<ol style="list-style-type: none"> 1. Methods of functional diagnostics of the vascular system and hemodynamics. 2. Methods for determining blood pressure. Pulse examination. 3. Methods for studying blood flow in the vessels of individual organs.
5.	Principles of functional diagnostics of the gastrointestinal tract.	2	<ol style="list-style-type: none"> 1. Fundamentals of functional diagnostics of the digestive system. List the main functions of the gastrointestinal tract. 2. Laboratory methods for studying the function of the digestive tract. 3. Instrumental methods for examining the function of the digestive tract (FGDS, irrigoscopy , colonoscopy, rectoscopy). 4. X-ray methods for examining the function of the digestive tract (irrigography , CT). 5. Ultrasound examination of the parenchymal organs of the gastrointestinal tract.
6.	Principles of functional diagnostics of the kidneys and urinary tract.	2	<ol style="list-style-type: none"> 1. The main functions of the kidneys. 2. Laboratory methods for assessing kidney function. 3. X-ray examination of the kidneys, ureters and bladder. 4. Instrumental methods of examination of the kidneys and urinary tract.
7.	Principles of functional diagnostics of the external respiratory system	2	<ol style="list-style-type: none"> 1. Physiological basis of methods for studying respiration. 2. Physiological indicators of pulmonary ventilation, airway resistance. 3. Methods of functional diagnostics of external respiration. 4. Methods for determining the diffusion capacity of the lungs. 5. Functional tests with breath holding.
8.	Principles of functional diagnostics of the immunobiological surveillance system.	2	<ol style="list-style-type: none"> 1. Concepts about the types of immunity and its components. 2. Methods for identifying allergic diseases. 3. Assessment of the immune status of the body. 4. The concept of serodiagnostics of infectious diseases.
9.	Completing an individual assignment	2	<ol style="list-style-type: none"> 1. Generalization of the material studied. 2. Completion of an individual task.

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