

**MINISTRY OF EDUCATION AND SCIENCE OF THE KYRGYZ REPUBLIC  
MINISTRY OF SCIENCE AND HIGHER EDUCATION  
RUSSIAN FEDERATION  
KYRGYZ-RUSSIAN SLAVIC UNIVERSITY THEM B.N. YELTSINA**

**ENDORSED BY**  
Dean of Medical Faculty  
Karaeva R.R.



**Physiology Practicum**  
Course outline (module)  
31.05.01. General medicine

Assigned to Normal Physiology Department  
Academic Curriculum 31050150 18 12 GM.plx  
Qualification General medicine  
Mode of Study Intramural  
The Course outline developed by Dzhailobaeva E.A.

Course Hours Scheduling (per semester)						
Semester Academic Year	3 (2.1)		4 (2.2)		Total	
	Weeks		Weeks			
Type of Training	AC	CO	AC	CO	AC	CO
Lectures						
Lab Practical						
Practical Session	36	36	36	36	72	72
Including Interactive Session			2	2	2	2
Total In-class Session	36	36	36	36	72	72
Individual Work Assessment						
Face-to-face Learning	36	36	36	36	72	72
Individual Work			36	36	36	36
<b>Total</b>	<b>36</b>	<b>36</b>	<b>72</b>	<b>72</b>	<b>108</b>	<b>108</b>

1. COURSE OUTLINE OBJECTIVES	
1.1	The goal of practicum complement traditional course of normal physiology and formation skills of functional diagnostics for using in clinical practice of a doctor.

2. PLACE OF THE COURSE IN THE EDUCATIONAL PROGRAM	
Educational Program Units:	
<b>2.1</b>	<b>Students' Preliminary Training Requirements:</b>
2.1.1	Anatomy
2.1.2	Biology
2.1.3	Normal physiology
2.1.4	Physics
2.1.5	Latin language
2.1.6	Mathematics
2.1.7	Histology, Embryology, Cytology
<b>2.2</b>	<b>Course Units and Practical Sessions imposing the prior Proficiency</b>
2.2.1	Medical informatics
2.2.2	Neurology
2.2.3	Propaedeutics of internal diseases
2.2.4	Infectious diseases
2.2.5	Traumatology, Orthopedics
2.2.6	Polyclinic therapy
2.2.7	Gerontology

3. STUDENTS' COMPETENCIES RESULTING FROM THE COURSE UNIT (MODULE)	
<b>C.-9:</b> the ability to assess the morphofunctional, physiological states and pathological processes in the human body for solving professional problems.	
<b>Knowledge:</b>	
Level 1	the basic functions of tissues, organs and body systems
Level 2	the principle of the device work for technical classes, units of measurement and normal indicators of the functional diagnostic
Level 3	algorithm for analyzing the results of functional research
<b>Skills:</b>	
Level 1	to do observation of safety measures during the working with biomaterials; use medical equipment, prepare the patient for observation
Level 2	to do observation of the patient, to fill in observation protocols
Level 3	To do evaluation of visceral systems condition taking into account the functional condition of the patient's body
<b>Expertise:</b>	
Level 1	expertise in using medical equipment
Level 2	expertise in analyzing the results of diagnostic studies
Level 3	expertise in using system approach for analysis of medical information

#### Final Students' Competences

3.1	Knowledge:
3.1.1	<p>Basic principles of work with biomaterials and safety measures.</p> <p>Methods of hematological studies; the main indicators of the hemogram, blood groups determination, the Rh factor, the principles of blood transfusion.</p> <p>The mechanisms of bioelectric phenomena, the particularities of the muscle's regulation contraction processes, the theoretical and practical bases of electromyography.</p> <p>The role of various departments and structures of the central nervous system in the regulation of somatic and visceral functions of the body, the characteristics and methods of studying reflexes.</p>

	<p>Features of the organization in various departments of sensory systems; methods of research. Physiological parameters of visceral systems.</p> <p>The main processes and mechanisms to maintain the constancy of body temperature.</p> <p>The device and principle of operation of the electromyograph, electrocardiograph, phonocardiograph, spiograph.</p> <p>Principles of formulation a diet based on the categories of labor.</p> <p>Forms of higher nervous activity symptoms in humans, the classification and characterization of types of higher nervous activity.</p>
<b>3.2</b>	<b>Skills:</b>
3.2.1	<p>To do haematological studies.</p> <p>To prepare the patient for observation.</p> <p>To record Electromyography, Electrocardiography, Phonocardiography.</p> <p>To do computer analysis of EMG, FCG. To study reflexes, to evaluate vegetative homeostasis.</p> <p>To measure blood pressure, carry out auscultation of the heart and palpation of the pulse.</p> <p>To do Spirometry and Spirography.</p> <p>To make a daily ration. To do thermometry on various sites of a body.</p> <p>To evaluate the indices of visceral systems with different functional condition of the organism.</p> <p>To fill in the research protocols.</p>
<b>3.3</b>	<b>Expertise:</b>
3.3.1	<p>Skills of safe work with biomaterials and laboratory animals. Methods of sampling biological fluids for research.</p> <p>Methods of studying simple and complex reflexes, providing tests.</p> <p>Methods of auscultation and palpation. The method of EMG, ECG, FCG registration of Spirometry.</p> <p>Methods for evaluating the results of diagnostic studies.</p>