

## *Summary of the working program of the academic discipline*

### «PHTHISIATRY»

(name of the academic discipline)

General Educational Program of higher education (specialist's degree programs) 31.05.01  
General Medicine

Department: phthiology named after I.S. Nikolaev

**1. The purpose of mastering the discipline «Phthisiatry»:** (hereinafter – the discipline): the purpose of mastering the discipline is to give students knowledge in the field of phthiology, taking into account the specifics in their future work. The goals and content of training are determined by the current state of phthiopulmonology, characterized by an acute situation in the incidence of tuberculosis, when the incidence of this pathology in our country and in a number of other countries is one of the priority tasks of healthcare. In the changing conditions of the organization of anti-tuberculosis activities, deep knowledge of phthiology is necessary not only for phthiatricians, but, above all, for general practitioners.

1.1. The purpose of mastering the discipline: participation in forming the relevant competencies UC-1, UC-6, GPC-1, GPC-5, GPC-7, PC-1, PC-3, PC-5, PC-6, PC-7.

**2. Position of the academic discipline in the structure of the General Educational Program (GEP).**

**2.1.** The discipline «Phthisiatry» refers to the core part of Block 1 of GEP HE (B1.O.41).

**3. Deliverables of mastering the academic discipline and metrics of competence acquisition**

Mastering the discipline aims at acquiring the following universal (UC) or/and general professional (GPC) or/and professional (PC) competencies

№	Competence code	The content of the competence (or its part)	Code and name of the competence acquisition metric	As a result of mastering the discipline, the students should:		
				know	be able to	possess
1.	U	Able to carry out a critical analysis of problem situations based on a systematic approach, develop an action strategy	IUC 1.1 Knows: methods of critical analysis and evaluation of modern scientific achievements; basic principles of critical analysis IUC 1.2 Able to: gain new knowledge based on analysis, synthesis, etc.; collect data on complex scientific problems related to the professional field; search for information and solutions based on action, experiment and experience IUC 1.3 Has practical experience: researching the problem of professional activity using analysis, synthesis and other methods of intellectual activity; developing an action strategy to solve professional problems	Methods of critical analysis and evaluation of modern scientific achievements; basic principles of critical analysis	Obtain new knowledge based on analysis, synthesis, etc.; collect data on complex scientific problems related to the professional field; search for information and solutions based on action, experiment and experience	The ability to explore the problems of professional activity using analysis, synthesis and other methods of intellectual activity; methods of developing an action strategy for solving professional problems
2.	U	Able to identify and implement the priorities of their own activities and ways to improve them based on self-assessment and lifelong learning	IUC 6.1 Knows: the importance of planning long-term goals of activity, taking into account conditions, means, personal opportunities, stages of career growth, time perspective of development of activity and requirements of the labor market; technology and methodology of self-assessment; basic principles of self-education and self-education	The importance of planning long-term goals of activity, taking into account the conditions, means, personal opportunities,	Determine the priorities of professional activity and ways to improve it based on self-assessment; control and evaluate the	The ability to plan their own professional activities and self-development, study additional educational programs

			<p>IUC 6.2 Is able to: determine the priorities of professional activity and ways to improve it on the basis of self-assessment; control and evaluate the components of professional activity; plan independent activities in solving professional problems</p> <p>IUC 6.3 Has practical experience: planning their own professional activities and self-development, studying additional educational programs</p>	<p>stages of career growth, time perspective for the development of activities and labor market requirements; technology and methodology of self-assessment; basic principles of self-education and self-education</p>	<p>components of professional activity; plan independent activities in solving professional problems</p>	
3.	GPC-1	<p>Able to implement moral and legal norms, ethical and deontological principles in professional activities</p>	<p>IGPC 1.1 Knows: basics of medical ethics and deontology; fundamentals of legislation in the field of healthcare; legal aspects of medical practice</p> <p>IGPC 1.2 Is able to: apply ethical norms and principles of behavior of a medical worker in the performance of their professional duties; knowledge of modern legislation in the field of healthcare in solving problems of professional activity; apply the rules and norms of interaction between a doctor and colleagues and patients (their legal representatives)</p> <p>IGPC 1.3 Has practical experience: solving standard problems of professional activity based on ethical norms and deontological principles when interacting with colleagues and patients (their legal representatives), knowledge of the legal aspects of medical practice</p>	<p>Fundamentals of medical ethics and deontology; fundamentals of legislation in the field of healthcare; legal aspects of medical practice</p>	<p>Apply ethical norms and principles of behavior of a medical worker in the performance of their professional duties; apply knowledge of modern legislation in the field of healthcare in solving problems of professional activity; apply the rules and norms of interaction between a doctor and colleagues and patients (their legal representatives)</p>	<p>Skills for solving standard problems of professional activity based on ethical norms and deontological principles when interacting with colleagues and patients (their legal representatives), knowledge of the legal aspects of medical practice</p>
4.	GPC-5	<p>Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems</p>	<p>IGPC 5.1 Knows: anatomy, histology, embryology, topographic anatomy, physiology, pathological anatomy and physiology of human organs and systems</p> <p>IGPC 5.2 Able to: evaluate the basic morphological and functional data, physiological conditions and pathological processes in the human body</p> <p>IGPC 5.3 Has practical experience: assessment of basic morphological and functional data, physiological conditions and pathological processes in the human body when solving professional problems</p>	<p>Anatomy, histology, embryology, topographic anatomy, physiology, pathological anatomy and physiology of human organs and systems</p>	<p>Evaluate basic morphofunctional data, physiological conditions and pathological processes in the human body</p>	<p>Methods for evaluating basic morphological and functional data, physiological conditions and pathological processes in the human body when solving professional problems</p>
5.	GPC-7	<p>Able to prescribe treatment and monitor its effectiveness and safety</p>	<p>IGPC 7.1 Knows: methods of drug and non-drug treatment, medical indications for the use of medical devices for the most common diseases; groups of drugs used to provide medical care in the treatment of the most common diseases; the mechanism of their action, medical indications and contraindications to the appointment; compatibility, possible complications, side effects, adverse reactions, including serious and unforeseen; features of medical care in emergency forms</p> <p>IGPC 7.2 Is able to: develop a treatment plan for patients with the most common diseases in accordance with the procedures for providing medical care, clinical guidelines, taking into account the standards of medical care; prevent or eliminate complications, side effects, adverse reactions, including unforeseen ones, resulting from diagnostic or therapeutic manipulations, the use of drugs and (or) medical devices, non-drug treatment</p> <p>IGPC 7.3 Has practical experience in: developing a treatment plan for patients with</p>	<p>Methods of drug and non-drug treatment, medical indications for the use of medical devices for the most common diseases; groups of drugs used to provide medical care in the treatment of the most common diseases; the mechanism of their action, medical indications and contraindications to the appointment; compatibility,</p>	<p>Develop a treatment plan for patients with the most common diseases in accordance with the procedures for providing medical care, clinical guidelines, taking into account the standards of medical care; prevent or eliminate complications, side effects, adverse reactions, including unforeseen ones,</p>	<p>Methods for developing a treatment plan for patients with the most common diseases in accordance with the current procedures for the provision of medical care, clinical guidelines, taking into account the standards of medical care; provision of emergency and urgent medical care to patients with the most common diseases, in accordance with the current procedures for the provision of medical care,</p>

			<p>the most common diseases in accordance with the current procedures for the provision of medical care, clinical guidelines, taking into account the standards of medical care; provision of emergency and urgent medical care to patients with the most common diseases, in accordance with the current procedures for the provision of medical care, clinical guidelines, taking into account the standards of medical care; selection and prescription of medicines, medical devices with the most common diseases for the treatment of the most common diseases in children and adults in accordance with the current procedures for the provision of medical care, clinical recommendations, taking into account the standards of medical care; evaluation of the effectiveness and safety of the use of drugs, medical devices and non-drug treatment in patients with the most common diseases; selection and prescription of non-drug treatment for patients with the most common diseases in accordance with the procedures for providing medical care, clinical guidelines, taking into account the standards of medical care; prevention and treatment of complications, side effects, adverse reactions, including unforeseen ones, resulting from diagnostic or therapeutic manipulations, the use of drugs and (or) medical devices, non-drug treatment; providing medical care to patients with sudden acute diseases, conditions, exacerbation of chronic diseases without obvious signs of a threat to the patient's life in an emergency form; the use of medicines and medical devices in the provision of medical care in an emergency form</p>	<p>possible complications, side effects, adverse reactions, including serious and unforeseen; features of medical care in emergency forms</p>	<p>resulting from diagnostic or therapeutic manipulations, the use of drugs and (or) medical devices, non-drug treatment</p>	<p>clinical guidelines, taking into account the standards of medical care; selection and prescription of medicines, medical devices with the most common diseases for the treatment of the most common diseases in children and adults in accordance with the current procedures for the provision of medical care, clinical recommendations, taking into account the standards of medical care; evaluation of the effectiveness and safety of the use of drugs, medical devices and non-drug treatment in patients with the most common diseases; methods for selecting and prescribing non-drug treatment for patients with the most common diseases in accordance with the procedures for providing medical care, clinical guidelines, taking into account the standards of medical care; methods for the prevention and treatment of complications, side effects, adverse reactions, including unforeseen ones, resulting from diagnostic or therapeutic manipulations, the use of drugs and (or) medical devices, non-drug treatment; providing medical care to patients with sudden acute diseases, conditions, exacerbation of chronic diseases without obvious signs of a threat to the patient's life in an emergency form; methods of using medicines and medical devices in the provision of medical care in an emergency form</p>
6.	PC-1	Able to assess the condition of a patient	IPC 1.1 Knows: etiology, pathogenesis and pathomorphology, clinical picture,	Etiology, pathogenesis and	Identify clinical signs of	Skills for assessing the condition of a

		requiring emergency or emergency medical care	differential diagnosis, course features, complications and outcomes of diseases of internal organs; methodology for collecting complaints and anamnesis; physical examination technique (examination, palpation, percussion, auscultation); a list of laboratory and instrumental research methods for assessing the condition, the main medical indications for conducting research and interpreting the results in patients requiring medical care in emergency or emergency forms  IPC 1.2 Able to: identify clinical signs of conditions requiring emergency or emergency medical care	pathomorphology, clinical picture, differential diagnosis, course features, complications and outcomes of diseases of internal organs; methodology for collecting complaints and anamnesis; physical examination technique (examination, palpation, percussion, auscultation); a list of laboratory and instrumental research methods for assessing the condition, the main medical indications for conducting research and interpreting the results in patients requiring medical care in emergency or emergency forms	conditions requiring emergency or emergency care	patient requiring medical care in emergency or emergency forms
7.	P	Able to provide emergency medical care to patients in case of sudden acute diseases, conditions, exacerbation of chronic diseases without obvious signs of a threat to the patient's life, to provide emergency medical care to patients in conditions that threaten the patient's life, including clinical death (suspension of vital functions the human body (circulation and/or respiration)	IPC 3.1 Knows: basic cardiopulmonary resuscitation rules; principles of operation of devices for external electropulse therapy (defibrillation); rules for performing external electrical impulse therapy (defibrillation) in case of sudden cessation of blood circulation and / or respiration  IPC 3.2 Knows how to: perform measures to provide medical care in urgent and emergency forms; basic cardiopulmonary resuscitation in combination with electrical impulse therapy (defibrillation)	Rules for conducting basic cardiopulmonary resuscitation; principles of operation of devices for external electropulse therapy (defibrillation); rules for performing external electrical impulse therapy (defibrillation) in case of sudden cessation of blood circulation and / or respiration	To carry out measures to provide medical care in urgent and emergency forms; basic cardiopulmonary resuscitation in combination with electrical impulse therapy (defibrillation)	Skills in providing medical care and emergency care in the development of various pathological conditions
8.	P	Able to collect complaints, anamnesis of the patient's life and illness, conduct a complete physical examination of the patient (examination, palpation, percussion, auscultation), formulate a preliminary diagnosis and draw up a plan for laboratory and instrumental examinations of the patient	IPC 5.1 Knows: The legislation of the Russian Federation in the field of health care, regulations and other documents that determine the activities of medical organizations and medical workers; method of collecting complaints, anamnesis of life and disease of the patient; a technique for a complete physical examination of the patient (examination, palpation, percussion, auscultation); etiology, pathogenesis and pathomorphology, clinical picture, differential diagnosis, course features, complications and outcomes of diseases of internal organs; patterns of functioning of a healthy human body and mechanisms for ensuring health from the standpoint of the theory of	Legislation of the Russian Federation in the field of health care, regulatory legal acts and other documents that determine the activities of medical organizations and medical workers; method of collecting complaints, anamnesis of life and disease of	Collect complaints, anamnesis of life and disease of the patient and analyze the information received; conduct a complete physical examination of the patient (examination, palpation, percussion, auscultation) and	The skills of collecting complaints, anamnesis of the patient's life and illness, conducting a complete physical examination of the patient (examination, palpation, percussion, auscultation), formulating a preliminary diagnosis and drawing up a plan

			<p>functional systems; features of the regulation of the functional systems of the human body in pathological processes; methods of laboratory and instrumental studies for assessing the state of health, medical indications for conducting studies, rules for interpreting their results</p> <p>IPC 5.2 Able to: collect complaints, anamnesis of life and disease of the patient and analyze the information received; conduct a complete physical examination of the patient (examination, palpation, percussion, auscultation) and interpret its results; determine the sequence of volume, content and sequence of diagnostic measures</p>	<p>the patient; a technique for a complete physical examination of the patient (examination, palpation, percussion, auscultation); etiology, pathogenesis and pathomorphology, clinical picture, differential diagnosis, course features, complications and outcomes of diseases of internal organs; patterns of functioning of a healthy human body and mechanisms for ensuring health from the standpoint of the theory of functional systems; features of the regulation of the functional systems of the human body in pathological processes; methods of laboratory and instrumental studies for assessing the state of health, medical indications for conducting studies, rules for interpreting their results</p>	<p>interpret its results; determine the sequence of volume, content and sequence of diagnostic measures</p>	<p>for laboratory and instrumental examinations of the patient</p>
9.	P	<p>Able to refer the patient for laboratory, instrumental examination, for a consultation with specialist doctors if there are medical indications in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care, and also refer the patient for providing specialized medical care in an inpatient setting or in a day hospital if there are medical indications in accordance with the current procedures for</p>	<p>IPC 6.1 Knows: general issues of organizing medical care for the population, methods of laboratory and instrumental studies to assess the state of health, medical indications for conducting studies, rules for interpreting their results; procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care</p> <p>IPC 6.2 Knows how to: justify the need and scope of laboratory examination of the patient; justify the need and scope of instrumental examination of the patient; justify the need to refer the patient for consultations with specialist doctors; determine medical indications for the provision of emergency, including emergency specialized, medical care</p>	<p>General issues of organizing medical care for the population, methods of laboratory and instrumental research to assess the state of health, medical indications for conducting research, rules for interpreting their results; procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care</p>	<p>Justify the need and scope of laboratory examination of the patient; justify the need and scope of instrumental examination of the patient; justify the need to refer the patient for consultations with specialist doctors; determine medical indications for the provision of emergency, including emergency specialized, medical care</p>	<p>Skills sufficient to refer the patient to a laboratory, instrumental examination, to a consultation with specialist doctors if there are medical indications in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care, as well as skills sufficient to refer the patient to specialized medical care in an inpatient setting or in a day</p>

		the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care				hospital if there are medical indications in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care
10.	P	Able to make a differential diagnosis with other diseases/conditions, including emergencies, to establish a diagnosis taking into account the current international statistical classification of diseases and related health problems (ICD)	<p>IPC 7.1 Knows: etiology, pathogenesis and pathomorphology, clinical picture, differential diagnosis, course features, complications and outcomes of diseases of internal organs; methods of laboratory and instrumental studies for assessing the state of health, medical indications for conducting studies, rules for interpreting their results; ICD</p> <p>IPC 7.2 Able to: analyze the results of the patient's examination, if necessary, justify and plan the scope of additional studies; interpret the results of collecting information about the patient's disease; interpret the data obtained during the laboratory examination of the patient; interpret the data obtained during the instrumental examination of the patient; interpret the data obtained during consultations of the patient by medical specialists; to carry out differential diagnostics of diseases of internal organs from other diseases</p>	Etiology, pathogenesis and pathomorphology, clinical picture, differential diagnosis, course features, complications and outcomes of diseases of internal organs; methods of laboratory and instrumental studies for assessing the state of health, medical indications for conducting studies, rules for interpreting their results; ICD	Analyze the results of the patient's examination, if necessary, justify and plan the scope of additional studies; interpret the results of collecting information about the patient's disease; interpret the data obtained during the laboratory examination of the patient; interpret the data obtained during the instrumental examination of the patient; interpret the data obtained during consultations of the patient by medical specialists; to carry out differential diagnostics of diseases of internal organs from other diseases	Skills in differential diagnosis with other diseases/conditions, including emergencies, diagnosis based on the current International Statistical Classification of Diseases and Related Health Problems (ICD)

#### 4. Volume of the academic discipline and types of academic work

Total labor intensity of the discipline is 5 CU (180 AH)

Type of educational work	Labor intensity		Labor intensity (AH) in semesters
	volume in credit units (CU)	volume in academic hours (AH)	
Classroom work, including			11 semester (fall)
Lectures (L)	0,5	18	18
Laboratory practicum (LP)*			
Practicals (P)	1,89	68	68
Seminars (S)			
Student's individual work (SIW)	1,61	58	58
Mid-term assessment			
exam	1	36	36

TOTAL LABOR INTENSITY	5	180	180
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### 5. Sections of the academic discipline and competencies that are formed

№	Competence code	Section name of the discipline	The content of the section in teaching units
1.	UC-1, UC-6, GPC-1, GPC-5, GPC-7, PC-1, PC-3, PC-5, PC-6, PC-7	Theoretical foundations of phthiology. Peculiarities of examination of TB patients. Questions of treatment of patients with tuberculosis.	<p>1. Features of the methodology for examining a patient with pulmonary tuberculosis.</p> <p>2. Examination of patients. Formulation of the diagnosis in accordance with the requirements of the clinical classification.</p> <p>3. Tuberculin diagnostics. BCG vaccination.</p> <p>4. Treatment of patients with tuberculosis.</p> <p>Familiarization of students with the features of collecting various types of anamnesis, objective research methods. Features of laboratory and instrumental methods for examining patients and writing a case history of a tuberculosis patient. Sanitary and epidemiological regime and correction of knowledge about tuberculosis in basic disciplines.</p> <p>Examination of patients. Clinical classification of tuberculosis. The main clinical symptoms of pulmonary tuberculosis.</p> <p>Tuberculin diagnostics. Tuberculin testing for students.</p> <p>Prevention of tuberculosis. BCG and BCG-M vaccination, indications and contraindications.</p> <p>Evaluation of the effectiveness of vaccination, possible complications.</p> <p>Treatment of patients with pulmonary tuberculosis. Anti-tuberculosis drugs. Classification and doses.</p> <p>General principles and methods of tuberculosis chemotherapy. pathogenic therapy. Indications and contraindications for surgical treatment.</p>
2.	UC-1, UC-6, GPC-1, GPC-5, GPC-7, PC-1, PC-3, PC-5, PC-6, PC-7	Clinical forms of pulmonary tuberculosis (primary, disseminated, focal tuberculosis).	<p>1. Primary tuberculosis.</p> <p>2. Disseminated tuberculosis.</p> <p>3. Focal pulmonary tuberculosis. detection of tuberculosis.</p> <p>Primary pulmonary tuberculosis. Local and extra-local forms. Features of primary tuberculosis in adults.</p> <p>Diagnosis, clinic, treatment and prevention.</p> <p>disseminated pulmonary tuberculosis. Clinic, laboratory examination, instrumental methods, X-ray picture,</p>

			<p>diagnosis, treatment and prevention. Clinical analysis of patients with acute, subacute and chronic disseminated pulmonary tuberculosis.</p> <p>Focal pulmonary tuberculosis. Clinic, laboratory and instrumental methods of examination. X-ray picture, early detection and treatment. Clinical analysis of a patient with focal pulmonary tuberculosis. Methods for detecting pulmonary tuberculosis.</p>
3.	<p>UC-1, UC-6, GPC-1, GPC-5, GPC-7, PC-1, PC-3, PC-5, PC-6, PC-7</p>	<p>Clinical forms of pulmonary tuberculosis (infiltrative, cavernous, fibrous-cavernous, cirrhotic tuberculosis, pulmonary tuberculosis).</p>	<p>1. Infiltrative pulmonary tuberculosis. Tuberculoma of the lungs. Caseous pneumonia.</p> <p>2. Cavernous and fibrous-cavernous pulmonary tuberculosis. Cirrhotic pulmonary tuberculosis.</p> <p>Infiltrative tuberculosis and pulmonary tuberculosis. Clinical manifestations. Laboratory and instrumental diagnostic methods, X-ray picture. Diagnosis and treatment of patients. Caseous pneumonia. Diagnosis, clinic and treatment. Analysis of patients.</p> <p>Cavernous, fibrous-cavernous and cirrhotic pulmonary tuberculosis. Clinical manifestations. Laboratory and instrumental methods of examination of patients. X-ray picture. Diagnosis, treatment and prevention of cavernous and fibrous-cavernous pulmonary tuberculosis. Clinical analysis of patients with cavernous and fibrous-cavernous pulmonary tuberculosis.</p>
4.	<p>UC-1, UC-6, GPC-1, GPC-5, GPC-7, PC-1, PC-3, PC-5, PC-6, PC-7</p>	<p>Tuberculous pleurisy. Complications of tuberculosis. TB Dispensary.</p>	<p>1. Tuberculous pleurisy. Complications of tuberculosis.</p> <p>2. Tuberculosis dispensary. The work of institutions of the general medical network to detect tuberculosis.</p> <p>Tuberculous pleurisy. Types, clinic, diagnosis and treatment. Complications of tuberculosis: pulmonary bleeding and spontaneous pneumothorax. Urgent care. Structure of anti-tuberculosis service. Organization of work of anti-tuberculosis dispensary. Groupings of registration of tuberculosis patients and methods of monitoring the contingents registered in the TB dispensary. Groups of people at increased risk of tuberculosis. The work of therapists to identify tuberculosis.</p>
5.	<p>UC-1, UC-6, GPC-1, GPC-5, GPC-7,</p>	<p>Prevention of tuberculosis. Course exam (all sections of the discipline).</p>	<p>1. Prevention of tuberculosis.</p> <p>2. Exam.</p> <p>Types of prevention of tuberculosis. Economic importance of tuberculosis prevention. Clinical expert</p>



	PC-1, PC-3, PC-5, PC-6, PC-7		work. Acceptance of practical skills. Course exam in all sections of the discipline.
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