Syllabus
Working curriculum for the discipline "Phthisiatry"
Educational program 6B10115 "Medicine"

1.	General information about the discipline		
1.1	Code of discipline: Pht 4315	1.6	Academic year: 2025-2026г
1.2	Name of the discipline: «Phtisiatry»	1.7	Course: 4
1.3	Prerequisites: Fundamentals of radiologic diagnosis	1.8	Term: 9
1.4	Prerequisites: Phthisiatry at the primary health care level	1.9	Amount of credits (ECTS): 4
1.5	Cycle: PD	1.10	Componenet: HSC
2.	Description of the course (maximum 50 words)		
Formation of knowledge and skills on diagnostic methods, fundamentals of pharmacotherapy and prevention of tuberculosis, based on the application of scientific principles. Skills of compliance with the norms of public health protection, sanitary and hygienic regime, occupational safety in healthcare organizations, epidemiological safety of the environment.			
3.	Final Assessment Form		
3.1	✓ Testing	3.5	Coursework
3.2	written	3.6	Essay
3.3	verbal	3.7	Project
3.4	Certification of practical skills ✓	3.8	Other (specify)
4.	Goals of the discipline		
The formation of knowledge, skills and practical skills necessary for the early detection, diagnosis, treatment and prevention of tuberculosis in primary health care, as well as to ensure the continuity of observation and management of patients with tuberculosis in accordance with modern clinical guidelines.			
5.	**Final training results (LO discipline)**		
LO1.	Carries out professional activities within the framework of the legislation of the Republic of Kazakhstan in the field of healthcare, taking into account regulatory acts governing tuberculosis care, ensuring the quality, safety, and accessibility of medical services based on the principles of inclusion in phthisiology.		

LO2.	Complies with and applies public health protection standards, sanitary and anti-epidemic regulations, and epidemiological safety requirements in organizations providing tuberculosis care, ensuring the protection of personnel, patients, and the environment.					
LO3.	Analyzes the effectiveness of tuberculosis diagnostic and treatment methods using the principles of personalized medicine and modern clinical and epidemiological approaches.					
LO4.	Applies modern research methods using artificial intelligence technologies (big data analysis, medical image processing, intelligent tuberculosis diagnostics) in clinical and scientific practice, in compliance with the principles of bioethics and professional ethics.					
LO5	Conducts sanitary and health education activities among the population and high-risk groups on tuberculosis prevention, health promotion, and the formation of adherence to anti-tuberculosis treatment.					
5.1	**LO of the discipline**	**LO training results associated with RC disciplines**				
	PO1	LO3 Provides patient-centered care in biomedical, clinical, epidemiological sciences aimed at diagnosis, treatment and prevention of the most common diseases.				
	LO2	LO7 Observes the norms of public health protection, sanitary and hygienic regime and norms of labor safety in health care organizations, epidemiological safety of the environment.				
	LO3	LO11 Analyzes the effectiveness of diagnosis and treatment results, applying the principles of personalized medicine.				
	LO4	LO12 Applies the results of modern research methods in his/her professional activity using artificial intelligence, including processing and analyzing big data, processing medical images, diagnosing diseases, taking into account bioethics and observing all ethical norms.				
	LO5	LO14 Conducts sanitary and educational activities to strengthen the health of the population, preserve health and prevent diseases.				
6.	**Discipline details**					
6.1	Venue (building, auditorium): Regional Center of Phthisiopulmonology, Shymkent					
6.2	Amount of hours	Lectures	Practical.	Lab.knowledge	Independent work of a student with a teacher	Student's independent work
		10	30	-	12	68=12+56

7.	**Information about teachers**		
№	Name	Degrees and position	e-mail address
1.	Hodjaeva Sh.R.	assystent	Hodjaeva@mail.ru
2.	Usyvalieva S.Zh.	assystent	Usyvalieva@mail.ru
3	Nuranova N.T.	assystent	Nuranova@mail.ru
4	Zavarnycyna E.V.	assystent	Zavarnycyna@mail.ru

8. Tematical plan

Week/day	**Topic name**	**Summary**	**LO discipline**	**Hours**	**Forms/ Methods/ learning technologies**	**Forms/ evaluation methods**
1	**Lectures. Topic:**	National Tuberculosis	**LO2**	**1**	**observationa**	feedback

	Integrated tuberculosis control. Epidemiology of tuberculosis in the Republic of Kazakhstan. Etiology, pathogenesis and pathomorphology of tuberculosis.	Control Program. Integrated control model in Kazakhstan. Main epidemiological indicators of tuberculosis in the Republic of Kazakhstan. Etiology, pathogenesis and pathomorphology of tuberculosis. Sources, pathways, and modes of TB infection. Latent microbism.. The main stages of the development of the tuberculosis process.			**l**	
	Practical lesson. Subject: Introduction to specialty. Sanitary and epidemic regime in anti-tuberculosis institutions. Fundamentals of deontology in phthisiology. Features of clinical examination of patients with pulmonary tuberculosis.	The section includes a study of the structure and organization of the phthisiopulmonological center. A modern diagnostic algorithm for tuberculosis is considered in accordance with current clinical protocols, including a mandatory diagnostic minimum and additional examination methods. Molecular genetic, microbiological, cytological, histological and functional methods for diagnosing tuberculosis are covered.	**LO1 LO2**	**3**	Discussion of the topic of the lesson Working with provided X-ray images	Evaluation checklist: oral survey, solution of test assignments Check interpretation sheet X-ray images
	IWST/SIW Task Pulmonary tuberculosis in combination with other diseases	Pulmonary tuberculosis in combination with other diseases (diabetes mellitus, peptic ulcer and duodenal 12, pregnancy, postpartum period).	**LO1 LO2**	1/5	Preparation of presentations Compiling test tasks	Presentation Preparation and Protection Checklist Checklist for evaluating compiled test tasks
2	**Lecture. Subject:** Methods for	Diagnostic algorithm of patient examination for	**LO2**	1	**observationa l**	feedback

	detecting tuberculosis. Diagnostic algorithm. Tuberculinodiagnosis. Diaskintest.	suspected tuberculosis.				
	Practical lesson. Subject: Clinical classification of tuberculosis. Classification of cases. Methods for radiological diagnosis of pulmonary tuberculosis. Major radiological syndromes of lung diseases.	The section includes a study of the current clinical classification of tuberculosis and the classification of cases according to current clinical protocols. Methods of X-ray diagnostics of pulmonary tuberculosis and the main X-ray syndromes of respiratory diseases used in the interpretation of radiation research methods are considered.	**LO1 LO2**	**3**	Discussion of the topic of the lesson Working with provided X-ray images	Evaluation checklist: oral survey, solution of test tasks, solution of situational problems Check interpretation sheet X-ray images
	IWST/SIW Task Pulmonary tuberculosis and chronic non-specific lung diseases. Clinic and treatment. Examination of persons with post-tuberculosis changes in the lungs. Cure criteria.	The section is devoted to the clinical features of pulmonary tuberculosis and chronic non-specific lung diseases, the principles of their diagnosis and modern approaches to treatment. Methods of examination of persons with post-tuberculosis changes in the lungs are considered, as well as current criteria for the cure and completion of the course of anti-tuberculosis therapy according to clinical protocols.	**LO2**	1/6	Curation of thematic patients RBL	Bedside Skills Assessment Checklist Checklist of RBL-analysis of scientific articles
3	Lecture. Subject: Principles of tuberculosis treatment in modern settings. Anti-tuberculosis drugs. Drug-resistant	Modern principles of tuberculosis treatment, including standardized therapy regimens and stages of patient management. The classification and main	**LO2**	**1**	**observational**	feedback

	tuberculosis. Treatment monitoring.	groups of anti-tuberculosis drugs, features of the treatment of drug-resistant forms of tuberculosis are considered. Current approaches to monitoring treatment efficacy and safety are highlighted in accordance with current clinical protocols.				
	Practical lesson. Subject: Treatment of tuberculosis.	Current principles for the treatment of tuberculosis, standard regimens of anti-tuberculosis therapy, CRL, IRL, the procedure for prescribing drugs and monitoring their effectiveness and tolerability. Features of the management of patients with various clinical forms of the disease in accordance with current clinical protocols are considered	**LO2 LO4**	**3**	Discussion of the topic of the lesson TBL	Evaluation checklist: oral survey, solution of test tasks, solution of situational problems
	IWST/SIW Task Anti-tuberculosis drugs.	Classification of anti-tuberculosis drugs. New and repurposed drugs. Pharmacological properties of drugs. Side effects.	**LO2**	1/6	Curation of thematic patients	Check list of curation of the patients
4	Lecture. Topic: Allergy and anti-tuberculosis immunity. Tuberculosis immunoprophylaxis. Secondary tuberculosis. Pathogenesis, potomorphology. Clinical forms.	Concept of immunity. Mechanism of development of immune responses. Types of immunity. Immune-competent cells, their functions and interaction, methods of immune response. Cellular immunity. Humoral immunity. Primary tuberculosis in adults. Features of	**LO2 LO5**	**1**	**observational**	feedback

		clinical manifestations, diagnosis, treatment, outcome; dispensary surveillance. Primary tuberculosis complex. Clinical signs, diagnosis, course and treatment.				
	Practical lesson. Subject: Primary tuberculosis complex. Intrathecal lymph node tuberculosis. Tuberculinodiagnosis.	Clinical features of the primary tuberculosis complex and tuberculosis of the intrathoracic lymph nodes. Methods of tuberculinodiagnosis, principles of interpretation of reactions and their significance for early detection of the disease in accordance with modern clinical protocols are considered.	**LO1 LO2 LO3**	3	Discussion of the topic of the lesson, TBL Working with provided X-ray images	Evaluation checklist: oral survey, solution of test tasks, solution of situational problems Check interpretation sheet X-ray images
	IWST/SIW **Task** X-ray diagnosis of rounded formations in the lungs.	Radiological methods for the diagnosis of rounded formations in the lungs, features of image interpretation and differential diagnosis, taking into account modern clinical protocols.	**LO2**	1/6	Preparation of presentations Curation of thematic patients, work with medical documentation	Presentation Preparation and Protection Checklist Checklist for assessment of practical skills at the bedside, medical records
5	**Lecture. Subject:** Disseminated pulmonary tuberculosis. Pathogenesis, pathomorphology,	Features of disseminated tuberculosis in early and late dissemination. Clinical forms of disseminated tuberculosis.	**LO2**	**1**	**Observational Illustrative**	Feedback on the topic

	clinic, diagnosis, treatment.	Pathogenesis, pathomorphology, clinic, diagnosis, treatment.				
	Practical lesson. Subject: Disseminated pulmonary tuberculosis.	Features of disseminated pulmonary tuberculosis in early and late dissemination. Diagnosis and treatment.	**LO1 LO2 LO3**	**3**	Discussion of the topic of the lesson Working with provided X-ray images	Evaluation checklist: oral survey, solution of test tasks, solution of situational problems Check interpretation sheet X-ray images
	IWST/SIW **Task:** X-ray diagnosis of disseminated pulmonary tuberculosis.	Radiological diagnosis of disseminated pulmonary tuberculosis, features of detecting typical and atypical changes, as well as differential diagnosis according to modern clinical protocols.	**LO2** **LO1 LO2 LO3**	2/5	Preparation of presentations Curation of thematic patients	Presentation Preparation and Protection Checklist Checklist for assessment of practical skills at the bedside,
	Midterm control1	Control includes the content of lectures, practical exercises and IWST/SIW Topic: 1-5.	**LO4**		Testing Working with provided X-ray images	Check list of testing Check interpretation sheet X-ray images
6	**Lecture. Subject:** Tuberculosis meningitis. Pathogenesis, pathomorphology,	Meninges and CNS tuberculosis. Pathogenesis, pathomorphology, clinic, diagnosis. Basilar	**LO2**	**1**	**Observational Illustrative**	Feedback

	clinic, diagnosis, treatment.	miningitis. Miningoencephalitis. Peculiarities of the course of tuberculosis miningitis. Treatment. Complications.				
	Practical lesson. Subject: Tuberculosis meningitis.	Clinic, diagnostics and modern approaches to the treatment of tuberculosis meningitis, including methods of laboratory, instrumental and neuroimaging diagnostics in accordance with current clinical protocols.	**LO1 LO2 LO3**	**3**	Discussion of the topic of the lesson Viewing video content: Technique of spinal tap, mastering the material and further development of practical skills in the PSC	Evaluation checklist: oral survey, solution of test tasks, solution of situational problems Checklist for mastering practical skills and teaching practical skills in the simulation room of the PSC
	IWST/SIW **Task**: Emergency physician care for pulmonary bleeding and spontaneous pneumothorax.	principles of emergency medical care for pulmonary bleeding and spontaneous pneumothorax, algorithms for emergency diagnosis and treatment, as well as modern approaches to stabilizing the patient's condition in accordance with clinical protocols.	**LO2 LO3 LO4**	1/6	Preparation of presentations Curation of thematic patients, RBL	Presentation Preparation and Protection Checklist Checklist for assessment of practical skills at the bedside, - checklist for analysis of scientific articles
7	**Lecture. Subject:** Pathogenesis of secondary	Secondary forms of tuberculosis. Pathogenesis. Focal	**LO2**	**1**	**Observational Illustrative**	Feedback

	tuberculosis. Focal pulmonary tuberculosis. Infiltrative tuberculosis. Pulmonary tuberculoma. Pathogenesis, pathomorphology, clinic, diagnosis. treatment	tuberculosis. Pathogenesis, pathomorphology, clinic, diagnosis. Infiltrative tuberculosis. Pathogenesis, pathomorphology, clinic, diagnosis, pulmonary tuberculoma. Pathogenesis, pathomorphology, clinic, diagnosis				
	Practical occupation. Subject: Focal pulmonary tuberculosis. Infiltrative pulmonary tuberculosis. Pulmonary tuberculoma.	Focal pulmonary tuberculosis. Infiltrative pulmonary tuberculosis. Pulmonary tuberculoma. Examination of patients, diagnosis. Clinical and radiological forms. Diagnosis, treatment with the position of evidence-based medicine. Outcomes.	**LO1 LO2 LO3**	**3**	Discussion of the topic of the lesson Working with provided X-ray images	Evaluation checklist: oral survey, solution of test tasks, solution of situational problems Check interpretation sheet X-ray images
	IWST/SIW task Radiosemiotics of extrapulmonary tuberculosis: genitourinary system and mesenteric lymph nodes.	X-ray semiotics of extrapulmonary tuberculosis, including changes in the genitourinary system and mesenteric lymph nodes, features of image interpretation and differential diagnosis in accordance with modern clinical protocols.	**LO2**	1/6	Preparation of presentations Curation of thematic patients, work with medical documentation	Presentation Preparation and Protection Checklist Checklist for assessment of practical skills at the bedside, medical records
8	**Lecture. Topic:** Cavernous, fibrous-cavernous, cirrhotic pulmonary tuberculosis.	Cavernous, fibrous-cavernous tuberculosis, cirrhotic pulmonary tuberculosis. Causes of formation, clinical	**LO2**	**1**	**Observational Illustrative**	Feedback

	Pathogenesis, pathomorphology, clinical diagnosis, treatment.	manifestations, course. Diagnosis and treatment, outcomes, observation of the dispensary.				
	Practical lesson. Subject: Destructive forms of pulmonary tuberculosis.	The section includes the study of clinical and radiological features of destructive forms of pulmonary tuberculosis, approaches to the diagnosis, treatment and dynamic observation of patients in accordance with modern clinical protocols.	**LO1 LO2 LO3**	**3**	Discussion of the topic of the lesson Working with provided X-ray images	Evaluation checklist: oral survey, solution of test tasks, solution of situational problems Check interpretation sheet X-ray images
	IWST/SIW **Task** Diagnosis of cavity formations in the lungs.	X-ray semiotics of cavity formations in the lungs. Diagnostics. Control includes the content of the lecture, practical exercises and SRO	**LO2 LO3**	1/6	Preparation of presentations Curation of thematic patients	Presentation Preparation and Protection Checklist Bedside assessment checklist
9	**Practical lesson. Subject:** Tuberculosis pleurisy and extrapulmonary tuberculosis.	Tuberculosis pleurisy. Causes of formation, clinical manifestations, course. Diagnosis and treatment, outcomes, observation of the dispensary. Extrapulmonary tuberculosis localizations. Pathogenesis, pathomorphology, clinic, diagnosis and treatment. Frequency and ratio of individual extrapulmonary	**LO1 LO2 LO3**	**4**	Discussion of the topic of the lesson Working with provided X-ray images	Evaluation checklist: oral survey, solution of test tasks, solution of situational problems Check interpretation sheet X-ray images

		localizations.				
	IWST/SIW **Task** X-ray semiotics of extrapulmonary tuberculosis: tuberculosis pleurisy, osteoarticular tuberculosis.	The section is devoted to X-ray semiotics of extrapulmonary tuberculosis, including tuberculosis pleurisy and osteoarticular lesions, features of image interpretation and differential diagnosis according to modern clinical protocols.	**LO2**	1/5	Preparation of presentations Curation of thematic patients	Presentation Preparation and Protection Checklist Checklist for assessment of practical skills at the bedside
10	**Practical lesson.** **Subject:** Tuberculosis prevention. Dispensary observation. Peculiarities of the course and treatment of tuberculosis prevention in the context of the Covid-19 pandemic	Types of prevention. Specific tuberculosis prevention. Organization of specific tuberculosis prevention. Chemoprophylaxis. Sanitary prevention. Dispensary accounting group.	**LO1** **LO2** **LO3**	**4**	Discussion of the topic of the lesson Working with provided X-ray images	Evaluation checklist: oral survey, solution of test tasks, solution of situational problems Check interpretation sheet X-ray images
	IWST/SIW **Task:** Internal amyloidosis, diagnosis, clinic, Respiratory failure, chronic pulmonary heart. Diagnosis, clinic treatment. **Midterm2**	Internal amyloidosis, diagnosis, clinic, respiratory failure, chronic pulmonary heart. Diagnosis, clinic, treatment. Control includes the content of lectures, practical exercises and SIW. Theme 6-10.	**LO2** **LO3** **LO1** **LO2** **LO3** **LO4**	2/5	Preparation of presentations Compiling test tasks Testing Working with	Presentation Preparation and Protection Checklist Checklist for evaluating compiled test tasks Check test sheet

			LO5		provided X-ray images	Check interpretation sheet X-ray images
	Preparation and performance of intermediate certification			12 hours		
9.	**Training and assessment methods**					
9.1	Lectures	Observational Illustrative				
9.2	Practical skills	Oral questioning, solution of situational problems, work with X-ray images provided, TBL, mastering practical skills and teaching practical skills in the simulation room of the PSC, testing.				
9.3	IWST/SIW	Preparation of a presentation, on the basis of the BCP, curation of patients, compilation of tests on the subject of RBL- analysis of scientific articles.				
9.4	Midterm-1,2	Testing. Working with the provided pictures.				
10	**Evaluation criteria**					
10.1	**Criteria for assessing the results of discipline training**					

№ LO	Name results of learning outcomes	Unsatisfactory	Satisfactory	Good	Excellent
LO1	Carries out professional activities within the framework of the legislation of the Republic of Kazakhstan in the field of healthcare, taking into account regulatory acts governing tuberculosis care, ensuring the quality, safety, and accessibility of medical services based on the principles of inclusion in phthisiology.	Demonstrates insufficient knowledge of the healthcare legislation of the Republic of Kazakhstan. Does not take into account regulatory legal acts related to tuberculosis care. Fails to ensure quality, safety, accessibility, and inclusive principles in professional medical activities.	Demonstrates basic knowledge of the healthcare legislation of the Republic of Kazakhstan. Partially considers regulatory legal acts related to tuberculosis care. Provides medical services with limited attention to quality, safety, accessibility, and inclusion in	Demonstrates solid knowledge of the healthcare legislation of the Republic of Kazakhstan. Correctly applies regulatory legal acts governing tuberculosis care in most professional situations. Ensures quality, safety, and accessibility of medical services while generally adhering to inclusive principles in	Demonstrates comprehensive and confident knowledge of the healthcare legislation of the Republic of Kazakhstan. Consistently and accurately applies all relevant regulatory legal acts governing tuberculosis care. Fully ensures high-quality, safe, accessible, and inclusive medical services in professional practice in phthisiology.

			phthisiology.	phthisiology.	
LO2	Complies with and applies public health protection standards, sanitary and anti-epidemic regulations, and epidemiological safety requirements in organizations providing tuberculosis care, ensuring the protection of personnel, patients, and the environment.	Demonstrates poor understanding of public health protection standards and sanitary, anti-epidemic, and epidemiological safety requirements. Does not comply with established regulations in tuberculosis care settings, creating risks for personnel, patients, and the environment.	Demonstrates basic awareness of public health protection standards and sanitary and anti-epidemic regulations. Applies epidemiological safety requirements inconsistently in tuberculosis care organizations, ensuring partial protection of personnel, patients, and the environment.	Demonstrates good knowledge of public health protection standards and sanitary, anti-epidemic, and epidemiological safety requirements. Correctly applies these regulations in most tuberculosis care situations, ensuring adequate protection of personnel, patients, and the environment.	Demonstrates comprehensive and systematic knowledge of public health protection standards, sanitary and anti-epidemic regulations, and epidemiological safety requirements. Consistently and accurately applies all regulations in tuberculosis care organizations, fully ensuring the safety and protection of personnel, patients, and the environment.
LO3	Analyzes the effectiveness of tuberculosis diagnostic and treatment methods using the principles of personalized medicine and modern clinical and epidemiological approaches.	Fails to analyze the effectiveness of tuberculosis diagnostic and treatment methods. Does not apply principles of personalized medicine or modern clinical and epidemiological approaches in analysis.	Performs a basic analysis of tuberculosis diagnostic and treatment methods. Demonstrates limited application of personalized medicine principles and modern clinical and epidemiological approaches, with superficial or	Conducts a competent analysis of the effectiveness of tuberculosis diagnostic and treatment methods. Appropriately applies principles of personalized medicine and modern clinical and epidemiological approaches, drawing	Provides a comprehensive and critical analysis of the effectiveness of tuberculosis diagnostic and treatment methods. Consistently integrates principles of personalized medicine with modern clinical and epidemiological approaches, producing well-founded, evidence-based conclusions.

			incomplete conclusions.	generally accurate conclusions.	
LO4	Applies modern research methods using artificial intelligence technologies (big data analysis, medical image processing, intelligent tuberculosis diagnostics) in clinical and scientific practice, in compliance with the principles of bioethics and professional ethics.	Does not demonstrate understanding or application of artificial intelligence–based research methods in clinical or scientific practice. Fails to comply with principles of bioethics and professional ethics when using data or digital technologies.	Demonstrates basic awareness of artificial intelligence technologies in research. Applies AI-based methods in a limited or guided manner, with partial compliance with bioethical and professional ethical principles.	Competently applies modern AI-based research methods, including big data analysis and medical image processing, in clinical or scientific contexts. Generally complies with bioethical and professional ethical standards.	Demonstrates advanced and independent application of artificial intelligence technologies in research and clinical practice, including intelligent tuberculosis diagnostics. Fully and consistently adheres to principles of bioethics and professional ethics, ensuring responsible and ethical use of AI.
LO5	Conducts sanitary and health education activities among the population and high-risk groups on tuberculosis prevention, health promotion, and the formation of adherence to anti-tuberculosis treatment	Does not demonstrate the ability to conduct sanitary and health education activities on tuberculosis prevention and treatment adherence. Provides inaccurate, incomplete, or inappropriate information to the population or high-risk groups.	Conducts basic sanitary and health education activities on tuberculosis prevention and health promotion. Information provided is generally correct but limited in scope and effectiveness, with insufficient emphasis on treatment adherence.	Effectively conducts sanitary and health education activities tailored to the population and high-risk groups. Provides accurate information on tuberculosis prevention, health promotion, and treatment adherence, using appropriate communication methods.	Demonstrates a comprehensive and proactive approach to sanitary and health education. Delivers clear, evidence-based, and culturally sensitive education to the population and high-risk groups, effectively promoting tuberculosis prevention, health promotion, and sustained adherence to anti-tuberculosis treatment.

10.2	Evaluation methods and criteria

Checklist for practice

Control form	Evaluation	Evaluation criterias
Oral survey	Excellent Consistent with estimates: A (4.0; 95-100%);	- The student did not make a single mistake or inaccuracy. - Deeply oriented in theories, concepts and directions of the studied discipline. - Gives a reasoned critical assessment of the material. - Skillfully uses scientific achievements of related disciplines.
	A- (3,67; 90-94%)	- The answer contains minor inaccuracies that do not distort the essence. - Oriented in the main theories and concepts of the discipline. - Can provide critical analysis elements. - Attracts materials from other disciplines, but not always consistently.
	Good Consistent with estimates: B+ (3.33; 85-89%);	- The answer is generally correct, with minor inaccuracies. - The student demonstrates an understanding of the theories and concepts of the discipline. - Can perform analysis based on examples. - Uses additional sources, but not always deeply.
	B (3,0; 80-84%)	- The answer contains individual errors or simplifications that do not distort the general essence. - The learner shows a general understanding of the material. - Instructor prompt required to organize material.
	B- (2,67; 75-79%)	- Noticeable errors are allowed, which the student can partially correct after clarifying questions. - Knowledge on the topic is superficial, but basic concepts are learned. - Active instructor assistance is required to understand the material.
	C+ (2,33; 70-74%)	- There are no gross errors, but there are unprincipled inaccuracies or fundamental errors corrected by the student himself. - Systematization of the material is possible only with the active help of the teacher. - The answer partly reflects the content of the topic.

	Satisfactory Consistent with estimates: C (2.0; 65-69%)	- The answer contains noticeable inaccuracies and a superficial presentation of the material. - Only the basic provisions of the textbook are used without understanding the relationships. - Systematization of the material is impossible without the active help of the teacher.
	C- (1,67; 60-64%)	- The answer contains noticeable inaccuracies and a superficial presentation of the material. - Only the basic provisions of the textbook are used without understanding the relationships. - Systematization of the material is impossible without the active help of the teacher.
	D+ (1,0; 50-54%)	- The answer is fragmented, with many errors and simplifications. - Only individual material elements are used, without their analysis and generalization. - The learner has significant difficulty working with theoretical content.
	Unsatisfactory Complies with the assessment: FX (0.5; 25-49%)	- The answer contains fundamental errors that distort the meaning. - The student has not worked out the main literature on the topic of the lesson. - Demonstrates poor knowledge of scientific terminology. - The answer is accompanied by gross logical and stylistic errors. - Lack of understanding of key concepts and the links between them.
	F (0; 0-24 %)	- The answer does not correspond to the topic of the lesson, contains numerous fundamental errors. - Complete lack of knowledge on the topic. - Does not use scientific terminology and does not demonstrate an understanding of the structure of the educational material.

Check list for solution of situational problems		
Control form	**Control form**	
Check list solution of situational problems	Excellent Complies with ratings: A (4.0; 95-100%);	The student solves the problem with deep clinical reasoning. - Gives a complete and consistent description of: • Basic and additional methods examinations • Differential diagnostics • Diagnosis with justification (etiology +

		pathogenesis) - The rational treatment plan is based on a deep understanding of the nature of the disease. - The prognosis of the disease is correctly determined. - Has a pronounced clinical thinking, demonstrates initiative.
	A- (3,67; 90-94%)	- The problem is solved correctly and reasonably, but there may be minor simplifications or omissions that do not affect the overall result. - Methods of examination, diagnosis and treatment are correctly described, but some of them are not disclosed deeply enough. - The diagnosis is correct, the rationale may be partially incomplete. - The treatment plan is generally rational, but no alternatives or additional measures are indicated. - Demonstrates formed clinical thinking, but does not always take the initiative.
	Good Complies with estimates: B+ (3.33; 85-89%);	- The student gave a fairly detailed description of the main and additional methods of examination. - Conducted differential diagnostics with an understanding of key differences. - Diagnosis is reasonable, based on medical history and examination. - The treatment plan is based on etiology and pathogenesis, but alternative approaches may not be considered. - The forecast is determined correctly. - Demonstrates good clinical thinking and logical construction of response. - The response is broadly structured, using medical terminology.
	B (3,0; 80-84%);	- The solution to the problem is generally correct, but contains some simplifications. - Examination and diagnostic methods are indicated, but not all are justified. - The diagnosis was made with adjustments by the teacher. - The treatment plan is appropriate but does not fully reflect the pathogenesis. - The forecast is assumed, without clear justification. - Clinical thinking is developed, but less often

		manifests itself independently.
	B- (2,67; 75-79%);	- The main methods of examination are given, but without sufficient detail. - The diagnosis is made, but requires refinement and clarification. - The treatment plan is general, not always correlated with pathogenesis. - The prognosis is unclear or missing. - Clinical thinking is limited, teaching assistance is required. - The answer is fragmented or incomplete, in some places the logic is broken.
	C+ (2,33; 70-74%);	- Examination methods are not fully specified, some are erroneous or do not correspond to the task. - Differential diagnosis is limited, without a clear argument. - The diagnosis is made with errors, or unreasonable. - The treatment plan is superficial, does not reflect the mechanisms of the disease. - The forecast is inaccurate or not given at all. - Clinical thinking is weak, the answer needs significant improvement.
	Satisfactorily complies with the estimates: C (2.0; 65-69%)	- Only the main examination methods are described, without additional ones. - Differential diagnosis is partially correct, but contains inaccuracies. - Diagnosis is made, but the rationale is superficial or incomplete. - The treatment plan was drawn up only with the help of a teacher, based on an incomplete understanding of the etiology and pathogenesis. - The prognosis is defined as general, without clear clinical justification. - Clinical thinking is poorly expressed, there are difficulties in reasoning logic.
	C- (1,67; 60-64%)	- Examination methods are named selectively, some of them do not correspond to the clinical situation. - Differential diagnosis is fragmentary, flawed or inconclusive. - The diagnosis is not justified or partially

		erroneous. - The treatment plan is superficial, drawn up only with the active help of the teacher. - The etiology and pathogenesis data used are inaccurate or formal. - Prognosis is uncertain, clinical thinking is poorly formed.
	D+ (1,33; 55-59%)	- Single correct examination methods are presented, the logic of the choice is not explained. - Differential diagnosis and diagnosis are incorrect or missing. - The treatment plan is incorrect or incomplete, requires constant prompting of the teacher. - Erroneous or superficial understanding of etiology and pathogenesis. - The forecast is not formulated. - Clinical thinking is almost non-existent.
	D- (1,0; 50-54%)	- Survey methods are named with errors or off topic. - Differential diagnosis and diagnosis do not correspond to the clinical situation. - Treatment plan incorrect or missing. - There is no understanding of etiology and pathogenesis. - The prognosis is not defined. - The answer is chaotic, illogical, clinical thinking is not traced.
	Unsatisfactorily corresponds to the estimates: FX (0; 0 - 49%)	- There may be significant impairment in the treatment plan, inappropriate or potentially harmful drugs are included. - Knowledge on etiology and pathogenesis is superficial, does not allow to build a logical answer. - The forecast is not formulated or incorrect. - Clinical thinking is not evident, the logic of response is weak or contradictory.
	F(0; 0 - 24%)	- The solution to the problem is grossly erroneous or absent. - The main methods of examination are named incorrectly, the additional ones are not mentioned at all. - Diagnosis and differential diagnosis are missing or completely flawed.

		- Treatment contraindicated at the suspected diagnosis was prescribed, indicating a lack of understanding of the clinical situation. - There is no knowledge on etiology and pathogenesis. - The prognosis has not been determined, no clinical conclusions have been made. - Clinical thinking is completely absent, the answer is chaotic, without medical logic.

Check interpretation sheet X-ray images

Control form	Evaluation	Evaluation criterias
Check interpretation sheet X-ray images	Excellent Complies estimates: A (4.0; 95-100%);	Demonstrates a confident step-by-step description of the X-ray image (quality, anatomy, pathological shadows). Correctly classifies forms of tuberculosis, analyzes the dynamics (before/after treatment). Confidently determines the projection. Uses additional literature and clinical data.
	A- (3,67; 90-94%)	Confidently describes the X-ray image (quality, anatomy, pathology), correctly classifies the forms of tuberculosis and analyzes the dynamics. Correctly identifies projection, uses literature and clinical data with minor errors.
	Good Consistent with estimates: B+ (3.33; 85-89%);	Executes a system description, but admits inaccuracies in the terminology or interpretation of individual characteristics. Can determine the form of tuberculosis, but does not always confidently connect it with the clinic. Errors are not system errors. Uses basic sources.
	B (3,0; 80-84%);	Executes a system description with inaccuracies in terminology or characteristic interpretation. Determines the form of tuberculosis, but does not always confidently associate with the clinic. Errors are isolated. Uses basic sources.
	B- (2,67; 75-79%)	The description is made partially, with noticeable errors in terminology and interpretation. It is difficult to determine the form of tuberculosis, the connection with the clinic is poorly traced. Uses limited sources.
	C+ (2,33; 70-74%)	The description is fragmentary, with gross errors in terminology and interpretation. The form of tuberculosis determines incorrectly or superficially, there is no connection with the clinic. Uses insufficient sources.

	Satisfactory Consistent with estimates: C (2.0; 65-69%)	Does not fully own the description algorithm. Indicates pathological changes, but cannot give them an accurate assessment. Constant support of the teacher is required. Confuses terms, does not take into account projection. Often limited to memorization rather than analysis.
	C-(1,67; 60-64%)	Does not know the full description algorithm, indicates pathology, but does not evaluate accurately. Constant teacher assistance is required. Confuses terms, ignores projection. Often repeats, does not analyze.
	Д+ (1,33; 55-59%)	Does not know the description algorithm, does not evaluate pathology. Often confuses terms and projections. The work is superficial, without analysis. Constant teacher assistance is required.
	Д-(1,0; 50-54%)	Does not own the algorithm, does not recognize pathology. Confused terms and projections, no analysis. Work is non-systemic, teacher assistance is required.
	Not satisfactory FX (0,5; 25-49%)	Can't describe an X-ray. Does not recognize pathology or describes the norm as a disease. It works haphazardly, does not orient in the image, confuses projections and anatomical structures. Does not use any sources.
	F (0; 0-24%)	Cannot describe an X-ray image, does not recognize pathology, or mistakenly interprets the norm as a disease. It works haphazardly, confuses projections and anatomy. Does not use sources.

Checklist for mastering practical skills and teaching practical skills in the simulation room of the PSC

Learning practical skills and teaching practical skills in the simulation room of the PSC	Excellent Consistent with estimates: A (4.0; 95-100%);	- The student is well versed in the algorithms for questioning and examining the patient. - Questions in the collection of anamnesis are selected accurately and essentially. - Demonstrates a high level of mastery of techniques: palpation, percussion, auscultation, general examination. - Confidently and accurately performs complex manipulations: • Spinal tap • Puncture in spontaneous pneumothorax • Mantoux Test - Additional literature was used in the preparation.

		- The student independently organizes the material and draws reasonable conclusions.
	A- (3,67; 90-94%)	- In general, it is guided by algorithms, makes single minor inaccuracies that do not affect the result. - Questions when collecting anamnesis are formulated correctly, but without deep detail. - Practical skills are performed correctly, but small technical errors are possible. - Demonstrates confident knowledge of basic manipulations and makes rare inaccuracies during: spinal tap, punctures with spontaneous pneumothorax, Mantoux test - Only part of additional literature used or surface worked. - The systematization of the material requires little support from the teacher.
	All right Consistent with estimates: B+ (3.33; 85-89%);	- The student is well versed in the process of questioning and examining the patient. - Admits non-fundamental inaccuracies or fundamental errors corrected independently. - Demonstrates basic practical skills (palpation, percussion, auscultation, general examination) correctly. - Performs complex manipulations (spinal tap, puncture for pneumothorax, Mantoux test) in general correctly, with small errors. - Additional literature used. - Systematization of the material is possible with the help of a teacher.
	B (3,0; 80-84%)	- It is oriented in the basic elements of questioning and inspection, but requires clarification. - Makes noticeable inaccuracies when performing practical skills, but understands the essence of the actions. Complex manipulations (spinal tap, puncture with pneumothorax, Mantoux test) are performed with errors, but after adjustment it demonstrates improvement. - Additional literature used in part. - Systematization of the material is carried out with the support of the teacher.

	B- (2,67; 75-79%)	- Demonstrates limited understanding of the interrogation and inspection procedure. - Errors in demonstration of practical skills are repeated, needs constant correction. - Complex manipulations (spinal tap, puncture for pneumothorax, Mantoux test) are performed partially or with methodological errors. - Does not use additional literature or uses formally. - The material is not systematized, requires constant support of the teacher.
	C+ (2,33; 70-74%)	- Oriented in questioning and inspection fragmentary. - Makes fundamental mistakes, but sometimes corrects them with the help of a teacher. - Practical skills are demonstrated uncertainly and with deviations from the algorithm. - Complex manipulations (spinal tap, puncture for pneumothorax, Mantoux test) are performed inaccurately or formally. - Additional literature is generally not used. - Systematization of the material is possible only with the active help of the teacher.
	Satisfactory Consistent with estimates: C (2.0; 65-69%)	- The trainee is guided in questioning and examining patients, but with errors and lack of completeness. - When demonstrating practical skills (palpation, percussion, auscultation, general examination), it makes fundamental errors, although it understands the general algorithm. - Performing complex manipulations (spinal tap, puncture for pneumothorax, Mantoux test) is partially correct, but with noticeable deviations. - Training is based only on basic educational literature. - Systematization of the material is difficult, the student needs the constant support of the teacher. - There are slight difficulties in applying the material to understanding the topic.
	C- (1,67; 60-64%)	- Questioning and examination are carried out partially correctly, often clarifying questions of the teacher are required. - When demonstrating practical skills, numerous mistakes are made, including fundamental ones, which are not always noticed and corrected. - Performing complex manipulations (spinal tap, puncture for pneumothorax, Mantoux test) is

		incomplete or incorrect. - Only mandatory literature is used, without deepening. - The student does not organize the material well, requires significant help. - Has difficulty understanding the topic and its clinical significance.
	D+ (1,0; 50-54%)	- Demonstrates fragmentary knowledge and weak orientation in questioning and examining the patient. - Practical skills are performed uncertainly, with systemic fundamental errors. - Complex manipulations (spinal tap, puncture with pneumothorax, Mantoux test) were performed incorrectly or not completed. - Preparation for the lesson is limited only by basic sources, without understanding. - There is no systematization of the material. - Cannot use material for meaningful analysis of the topic.
	Unsatisfactory Complies with the assessment: FX (0.5; 25-49%) F (0; 0-24 %)	- The student could not demonstrate practical skills or performed them with serious violations of the algorithm. - During the lesson, practically did not participate in the work of the group. - In answering the teacher's questions, he makes gross logical and factual errors. - Does not use specific medical terminology, demonstrates insufficient understanding of the topic.
	F (0; 0-24 %)	- Complete lack of practical skills: did not perform or performed actions that are not related to the topic. - Did not participate in the work of the group, did not show activity in the classroom. - The answers to the teacher's questions are incorrect, incoherent, with a complete lack of professional terminology. - Even the minimum level of understanding of the topic under study has not been demonstrated.

Check list for SIW

Control form	Evaluation	Evaluation criterias

Preparation and protection of presentations	Excellent Complies estimates: A (4.0; 95-100%);	The presentation was made independently, on time, at least 3 literary sources were used, the slides are meaningful and designed, when defending the presentation, it demonstrates deep knowledge of the topic, does not make mistakes when answering questions during the discussion, answers clearly without difficulty or a little thoughtfully with uncertainty. Check for plagiarism 95 - 100%.
	A- (3,67; 90-94%)	The presentation was made independently and on time. At least 3 sources were used. The slides are meaningful with minor flaws in the design. When defending, demonstrates good knowledge, slight uncertainty is possible when answering. No or minimal errors. The originality of the text is 90-94%.
	Good Consistent with estimates: B+ (3.33; 85-89%); B (3,0; 80-84%);	The presentation was made independently, on time, at least 3 literary sources were used, the slides are meaningful, possibly non-laconic, when protecting the presentation, it demonstrates good knowledge of the topic, makes mistakes when answering questions that it corrects. Check for plagiarism 70 - 89%.
		The presentation was made independently and on time. At least 3 sources were used. Slides are meaningful, but may be overloaded with text or poorly structured. When defending, it demonstrates a general understanding of the topic, has difficulties with answers, makes mistakes, does not always correct them on its own. Originality of the text - 70-84%.
	B- (2,67; 75-79%)	The presentation was done independently, possibly with a slight delay. Less than 3 sources are used or some sources are doubtful. The slides are meaningful, but poorly designed. When defending, demonstrates superficial knowledge, makes mistakes and finds it difficult to answer. Check for plagiarism - 75-79%.
	C+ (2,33; 70-74%)	The presentation was made late or there are doubts about independence. Less than 3 sources were used. The slides partially correspond to the topic, there are serious shortcomings in the content and design. When defending, he shows a poor understanding of the topic, makes

		significant mistakes. Check for plagiarism - 70-74%.
	Satisfactory Consistent with estimates: C (2.0; 65-69%)	The presentation was made independently, on time, at least 3 literary sources were used, the slides may not be meaningful, when defending the author makes fundamental mistakes when answering questions or does not focus on his own material. Check for plagiarism 50 - 69%.
	C-(1,67; 60-64%)	The presentation was made late or raises doubts about independence. Less than 3 references were used. Slides are not content or weakly reflect the topic. When defending, the author does not orient himself in the material, makes serious mistakes and cannot react to them. Check for plagiarism - 60-64%.
	Д+ (1,33; 55-59%)	The presentation was made late, there are doubts about independence. Fewer than 3 sources used or missing references. The slides are formal, barely revealing the topic. When defending, the author is poorly oriented in the material, cannot answer most of the questions. Check for plagiarism - 55-59%.
	Д(1,0; 50-54%)	The presentation was made late, there are serious doubts about independence. Sources are not specified or do not meet requirements. Slides are weakly related to the topic, have gross errors. When defending, the author does not understand the material, does not answer questions. Check for plagiarism - 50-54%.
	Not satisfactory FX (0,5; 25-49%)	For the census of this work. When protecting the presentation, the text reads incorrectly. The learner is not sufficiently oriented in his own material. Check for plagiarism 0 - 49%.
	F (0; 0-24%)	The work is performed with violations, requires complete processing. When protecting, the text reads with a large number of errors, does not orient itself in the material. Plagiarism check - 0-24%.

Practical skills and bedside assessment checklist

Control form	Evaluation	Evaluation criterias

Assessment of practical bedside skills	Excellent Complies estimates: A (4.0; 95-100%); A- (3,67; 90-94%)	Actively supervised patients. Competently filled out medical documentation. Correctly used knowledge of orders and clinical protocols at the reception. Filled out the diaries in a timely manner and correctly, checked in a timely manner, signed by the head of department
		Actively supervised patients, correctly filled out medical documentation. He applied knowledge of orders and protocols with minor errors. I filled out the diaries and signed them in a timely manner, possibly with a slight delay.
	Good Consistent with estimates: B+ (3.33; 85-89%);	Participated in the supervision of patients. Competently filled out medical documentation. Correctly used knowledge of orders and clinical protocols at the reception. I filled out the diaries in a timely manner and correctly, checked them in a timely manner, signed them with the head. Corrected the unprincipled mistakes himself.
	B (3,0; 80-84%);	Participated in the supervision of patients, filled out the documentation with errors. He applied orders and protocols with inaccuracies. I filled out the diaries and signed them with slight delays. I corrected errors with the help of a manager.
	B- (2,67; 75-79%)	Participated partially, the documentation is filled in with errors. He applied knowledge of orders and protocols with significant inaccuracies. He filled out diaries with delays, corrected errors with the help of a manager.
	C+ (2,33; 70-74%)	Participated poorly, documentation is poorly filled, many errors. I applied orders and protocols incorrectly. I filled out the diaries with a delay, I did not always correct the mistakes.
	Satisfactory Consistent with estimates: C (2.0; 65-69%)	Passively participated in the curation, filled out the documentation with errors. Orders and protocols used incorrectly. Filled diaries with delay and errors, corrected only with the help of the head, signed.
	C-(1,67; 60-64%)	The curation is minimal, the documentation is filled illiterate. Orders and protocols were not used or applied incorrectly. Filled diaries with big errors and delays, corrected only with the substantial help of the head of department
	Д+ (1,33; 55-59%)	Practically did not participate in the curation, the documentation is poorly filled or missing. I did not apply orders and protocols. Diaries not filled

		or with big errors, no corrections or minimal.
	Д(1,0; 50-54%)	Did not participate in the curation, the documentation is missing or filled in with serious errors. I did not use orders and protocols. The diaries have not been completed or are completely incorrect, there are no corrections.
	Not satisfactory FX (0,5; 25-49%)	There is no desire to supervise the patient. Inability to complete medical records/reluctance. Ignorance of clinical protocols and orders. Untimely and incorrect filling of diaries, diary not signed
	F (0; 0-24%)	There is no desire to supervise the patient. Medical documentation is incomplete or incorrect. Does not know clinical protocols and orders. Diaries did not fill, filled incorrectly or did not sign.

Checklist for evaluating compiled test tasks

Control form	Evaluation	Evaluation criterias
Evaluation of Test Task Compilation	Excellent Complies estimates: A (4.0; 95-100%);	When creating test tasks: test tasks - at least 10 questions. Sent on time. The basis of the tests is content. Test tasks are clear, understandable and clearly structured. Answer options correspond to paragraph 13 of the test requirements. Simplicity of the test - one test job contains tasks of the same level with one correct answer.
	A- (3,67; 90-94%)	10 tasks were presented, the work was sent on time. Questions are content-based, but minor inaccuracies are possible. The wording is generally clear, some deviations from the requirements are allowed.
	Good Consistent with estimates: B+ (3.33; 85-89%);	10 tasks were presented, the work was sent on time. The content is generally observed, but some inaccuracies or simplifications are made. The wording is unclear in places, the structure is partially broken. Answer options meet the requirements with individual deviations.
	B (3,0; 80-84%);	10 tasks presented, work sent with a delay or after a reminder. The content is partially reflected, there are inaccuracies and simplifications. The wording is incorrect in places, the structure is broken. Answer options do not always meet the requirements, errors

		occur
	B- (2,67; 75-79%) C+ (2,33; 70-74%)	Less than 10 tasks are presented or with a noticeable delay. The content is revealed superficially, inaccuracies and errors are made. The wording is unclear, the structure is weak. Answer options often do not meet the requirements, logical errors are possible.
		Tasks less than 10, work late. The content is poorly reflected, there are many inaccuracies and errors. The wording is unclear, the structure is broken. Answer options often do not meet the requirements, there are significant logical errors.
	Satisfactory Consistent with estimates: C (2.0; 65-69%)	When creating test tasks: There are stylistic and logical errors in test tasks (no more than 4 out of 10 test tasks).
	C-(1,67; 60-64%)	When creating tests: less than 10 questions or a significant delay. More than 4 out of 10 tasks contain stylistic and logical errors. The content is fragmented, the structure is broken, the answer options often do not meet the requirements.
	Д+ (1,33; 55-59%)	Few tasks presented, late work. Errors in most questions, content is poorly disclosed. The wording is unclear, the structure and answers are inadequate.
	Д(1,0; 50-54%)	Tasks not much or no. The work was done with a great delay. Errors and inaccuracies in all matters, the content is practically not disclosed. Wording and structure are inadequate.
	Not satisfactory FX (0,5; 25-49%)	There are too many mistakes in test tasks while creating test tasks (more than 6 out of 10 test tasks).
	F (0; 0-24%)	When creating test tasks: very few or no tasks are presented. In more than 6 out of 10 tasks, gross mistakes were made. The content is practically not disclosed, the structure is absent, the answer options do not meet the requirements.

Evaluation criteria (checklist) for RBL- analysis of scientific articles

Evaluation criterion/% score	Unsatisfactory/0-49%	Satisfactory/50-69%	Good/70-89%	Excellent/90-100%
Article structure	1) does not name	1) does not follow	1)Lists the	1) 1) Complies with

	the structural components of a scientific article	the order of the structure of the scientific article when listing, omits components	structural components of the scientific article, but violates the order of the structure	the procedure for the structure of a scientific article when listing 2) Title 3) Authors 4) Publishing house 5) Summary 6) General part (introduction, purpose, materials and methods, results and discussion) Literature
Analysis of the content of the scientific article	Does not understand the relevance of the problem, is not able to discuss the content of the article	2) Understands the urgency of the problem 3) List the purpose of the work, materials and methods used in the work 4) understands the content of the scientific article 5) Lists conclusions, references in this article	5) Suggests the urgency of the problem 6) Explains the purpose of the work, materials and methods used in the work 3) sets out the content of the scientific article 4) Substantiates conclusions 5) Justifies the selected reference list in this article	1) Independently substantiates and argues the relevance of the problem 2) Explains the purpose of the work, materials and methods used in the work 3) Freely sets out the semantic content of a scientific article 4) Argues and substantiates conclusions 5) Knows how to use literature and justifies the selected reference list in this article
Answer to additional questions (subject of discipline article)	Does not answer additional questions on the topic	Gives an incomplete answer to additional questions: Definition of disseminated tuberculosis Forms of disseminated tuberculosis Millionth tuberculosis. Clinical and	Applies the knowledge gained in the practical lesson on the topic to answer questions: Definition of disseminated tuberculosis Forms of disseminated tuberculosis	In full applies the knowledge gained in a practical lesson on the topic to answer questions: Definition of disseminated tuberculosis Forms of disseminated tuberculosis Millionth

		radiological forms. X-ray hemiotics of disseminated tuberculosis. Complications of disseminated tuberculosis. Causes of death in disseminated tuberculosis.	Millionth tuberculosis. Clinical and radiological forms. X-ray hemiotics of disseminated tuberculosis. Complications of disseminated tuberculosis. Causes of death in disseminated tuberculosis.	tuberculosis. Clinical and radiological forms. X-ray hemiotics of disseminated tuberculosis. Complications of disseminated tuberculosis. Causes of death in disseminated tuberculosis.

Multidimensional knowledge assessment system

Check list of testing			
Letter system rating	Numeral Points Equivalent	Percentage	Marking by traditional system
A	4,0	95-100	Отлично
A -	3,67	90-94	
B +	3,33	85-89	Хорошо
B	3,0	80-84	
B -	2,67	75-79	
C +	2,33	70-74	
C	2,0	65-69	Удовлетворительно
C -	1,67	60-64	
D+	1,33	55-59	
D-	1,0	50-54	
FX	0,5	25-49	Неудовлетворительно
F	0	0-24	

11. Learning resources

Electronic resources, including, but not limited to: databases, animation simulators, professional blogs, websites, other electronic reference materials (for example: video, audio, digests)	***Main literature:*** 1. Koshechkin, V. A. Phthisiology: textbook / V. A. Koshechkin. - ; Min. education and science of the Russian Federation. Recommended by GBOU DPO "Russian med. acad. postgraduate education". - M. : GEOTAR - Media, 2016. - 304 p. 2. Phthisiology : textbook / V. Yu. Mishin [et al.]. - 2nd ed., reprint. and additional - M. : GEOTAR - Media, 2016. - 520 p. 3. Perelman, M. I. Phthisiology : textbook / M. I. Perelman, I. V. Bogadelnikova. - 4th ed., reprint. and additional; Ministry of Education and Science of the Russian Federation. Rec. GO VPO "Mos. med. I. M. Sechenov Academy of Sciences." - Moscow : GEOTAR - Media, 2015. - 448 +e. opt. disc (CD-ROM).

4. Perelman, M. I. Phthisiology : zhogargy med. oku oryndaryn studentterine arnalgan okulyk / M. I. Perelman, V. A. Koryakin ; aud. T. A. Momynov. - Almaty : Evero, 2014. - 460 bet. p
. 5. Perelman, M. I. Phthisiology: okulyk / M. I. Perelman, I. V. Bogadelnikova; kazak tiline aud. zhane zhauapty ed. K. S. Igembaev ; RF bilim zhane gylym ministerligi. - 4-bass., ond. zhane tolykt. ; I. M. Sechenov atyndagy GOU VPO Moscow med. acad. usyngan. - M. : GEOTAR - Media, 2014. - 448 bet.
6. Phthisiology: Textbook / Rakisheva A.S., Tsogt G.; Ministry of Health of the Republic of Kazakhstan Kazak National Medical University named after S.D. Asfendiyarov; – Almaty, 2014. – 420s. http://www.studmedlib.ru /
7. Phthisiology: Textbook/ Rakisheva A.S., Tsogt G.; Ministry of Health of the Republic of Kazakhstan Kazak National Medical University named after S.D. Asfendiyarov; – Almaty, 2014. – 420s.

Additional:
1. Bekembayeva , G. S. Yeresekter men balalar tuberculosis differentials diagnostics men emi : oku kuraly / G. S. Bekembayeva , A. A. Zhandarkulov . - Kagandy : AKNUR, 2016. - 184 b
2. On approval of the rules for the prevention of tuberculosis, Order of the Minister of Health of the Republic of Kazakhstan dated November 30, 2020 No. KR DSM-214/2020
https://adilet.zan.kz/rus/docs/V2000021695
3. Phthisiology : textbook / V. Yu. Mishin et al. - 2nd ed., reprint. and add. - Moscow : GEOTAR-Media, 2016. - 520 S. Mishin, V. Yu. /EBS/ http://www.studmedlib.ru/
4. Phthisiology. National clinical recommendations [Text] : recommendation / edited by P. K. Yablonsky. - M. : GEOTAR - Media, 2015. - 240 p.
5. General medical practice. In 2 vols. Vol.2. [Text] : national guide / ed. by I. N. Denisov. - M. : GEOTAR - Media, 2016. - 888 p. - ISBN 978-5-9704-3906-7 : 32488.96 Tg.
6. Integrated tuberculosis control [Textbook] / Integrated tuberculosis control : manual. - Almaty : [B. I.], 2016. - 254 p. - ISBN 978-601-305-059-1
7. Zimina, V. N. Tuberculosis and HIV infection in adults [Text] : manual / V. N. Zimina, V. A. Koshechkin, A.V. Kravchenko. - M. : GEOTAR - Media, 2014. - 224 p. - ISBN 978-5-9704-2746

12.	**Discipline policy**
Requirements for presentation my to students	**Penalties and incentives**
Final control knowledge of student	If the student does not comply with the established requirements on the exam: uses cheat sheets, mobile and other devices, admits disciplinary violations, interferes with his actions to other students, representatives of the CTC and OR have the right to

	remove him from the audience. In this case, an act of violation of the exam procedure is drawn up, the exam results are canceled, "F," "0" is set in the list. Retake is not allowed. The student is re-registered for this training discipline/module on a paid basis, attends all types of training sessions, performs all types of training work according to the program and retakes the final control.
It is not allowed to skip classes without a good reason.	Missed classes for a disrespectful reason are not practiced. Students who missed classes for a disrespectful reason or did not work in the electronic journal in the cell next to the mark "0" are given a mark in the last week of the academic period with a frontal schedule of classes/2 days before the start of the exam with cycle learning.
Practice missed classes in a timely manner for a good reason.	Missed classes for a good reason are worked out when providing a supporting document (due to illness, family reasons or other objective reasons). The student is obliged to provide a certificate to the dean's office no later than 5 working days from the date of its receipt. In the absence of supporting documents or when submitting them to the dean's office later than 5 working days after going to school, the reason is considered disrespectful. The student submits an application in the name of the dean and receives a sheet of studies by indicating the deadline, which is valid within 30 days from the date of receipt in the dean's office. students who missed classes for a good reason in the electronic journal in the cell next to the mark "0" are given a grade obtained as a result of practicing the lesson. In this case, the mark "0" is automatically canceled. A student who has missed classes by order of the dean on release, the mark "0" is not set, an average grade of academic performance is set; milestone control is being worked out
Class attendance	If the student is late for more than 5 minutes, he is not allowed to study. "0" is set in the training log
The student must have the appropriate form (gown, cap, replaceable shoes, etc.).	In case of an inappropriate form, the student is not allowed to take a lesson or lecture, "0" is set in the educational journal or lecture journal
The student has a medical sanitary book.	Without a sanitary book, the student is not allowed to enter the departments of the clinic, "0" is set in the educational journal
SIWT	The SIW assessment is set out in the SIWT classes according to the schedule in an electronic journal.
Timely completion of CPS tasks	The SIWT assessment is set out in the SIWT classes according to the schedule in an electronic journal, taking into account penalty points, are taken away from the SROP assessments.
The student should respect the teachers and his classmates.	In case of disrespectful behavior of the student, a discussion of this behavior of the student at the cathedral is held, this is reported to the dean's office and parents.
Careful attitude of the student to the property of the department.	When the property of the department is destroyed, the student restores the property on his own.

Midterm	Midterm control of the student's knowledge is carried out: • at least twice during one academic period on 5/10 days of theoretical training - with a frontal schedule of classes • at least twice, during one cycle, depending on the duration of theoretical training - with a block schedule of classes • A student who has 3 or more passes in a practical lesson, including the CPS lesson, is not allowed to pass the milestone control • The results of milestone controls are timely submitted to the electronic journal. • A student who has not appeared for border control without a valid reason is not allowed to pass the discipline exam. • • A student who has not come to the border control for a good reason, immediately after starting classes, submits an application to the dean, provides supporting documents (for illness, family reasons or other objective reasons), receives a work sheet that is valid for the period indicated in slide 5.
Adjustment of estimates of current and milestone controls	Adjustment of estimates of current and milestone controls is carried out in case of technical errors in filling out the electronic journal on the basis of an explanatory note from the teacher (signed by the head of the department, dean of the faculty and compliance officer) indicating the reason; permissions of the vice-rector for educational and methodological work.
Final control evaluation	A student who has not scored a passing score (50%) for one of the types of controls (current control, milestone control No. 1 and/or No. 2) is not allowed for a discipline exam.

13.	Academic policy based on the moral and ethical values of the Academy

Discipline Grading Policy

Current control: testing, assessment of solving situational problems, discussion assessment sheet, assessment sheet of work in small groups, round table assessment sheet, diagnostic algorithm and treatment regimens

Midterm control: Testing. Controlling the assimilation of practical skills.

Mid-term control of students' knowledge is carried out at least twice during one academic period on 5/10days of theoretical training, with the results of midterm examinations being entered in the academic journal of progress and the electronic journal, taking into account penalty points for missing lectures (missed lectures in the form of penalty points are subtracted from the assessments of the intermediate control).

- the penalty point for missing one lecture without a valid reason is 1.0 point;
- a student who does not show up for midterm control without a valid reason is not allowed to take the discipline exam. A student who does not appear for midterm control for a good reason, immediately after starting classes, submits an application to the dean, provides supporting documents (due to illness, family circumstances or other objective reasons), receives a work sheet, which is valid for the term specified in clause 12.4. The results of midterm control are provided to the dean's office in the form of a report by the end of the control week.
- The assessment of the IWS is put out in the classroom of the IWST according to the schedule in the educational journal of progress and the electronic journal, taking into account the penalty points, are subtracted from the assessments of the IWS).
- if you miss one lesson of the IWST - a penalty point of 2.0;
- A student who has not received a passing score (50%) in one of the types of control (current control, midterm control No. 1 and / or No. 2) is not allowed to take the exam in the discipline.
- The examination score is set based on the results of the current and midterm controls - the assessment of the

passing score (APS) (60%) and the final control - the marks on the exam (40%).
- APS (assessment of the passing score) is determined as the average value of points for practical training, IWS, and midterm control.
- A student who scored a minimum score of the APS equal to 1 (15%) and above is allowed to take the exam.
Final control: oral exam

14.	Approval, approval and revision		
Date of approval by the Library and Information Center	25.06.2025	Head of the BIC Darbicheva R.I.	Signature
Date of approval at the department	Protocol No. 11 «26»06 2025	Head of the Department Candidate of Medical Sciences L.T. Kassayeva	Signature
Date of approval for AK OP «MEDICINE»	Protocol No. 7 «27»06 2025	Chairman of the Board Auezkhankyzy D.	Signature
Date of revision at the department	Protocol No.___ «____»___2025	Head of the Department Candidate of Medical Sciences L.T. Kassayeva	Signature
Date of revision on AK OP «MEDICINE»	Protocol No.___ «____»___2025	Chairman of the Board Auezkhankyzy D.	Signature