MIMINISTRY OF EDUCATION AND SCIENCE OF THE KYRGYZ REPUBLIC
OSH STATE UNIVERSITY
INTERNATIONAL MEDICAL FACULTY
DEPARTMENT OF CLINICAL DISCIPLINES №3

TRAINING PROGRAM
(Syllabus)

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Specialty (direction)	**«General medicine»**	**Course code**	**560001**
Language of instruction	**English**	**Discipline**	**Phthisiology**
Academic year	**2025-2026 y.**	**Number of credits**	**4**
Teacher	**Omurzakova A.E.** **Zhenish k A.** **Junusbaeva G.J.** **Kurbanaliev N.**	**Semester**	**6**
E-Mail	Asjasdar123@gmail.com ***gulnura140592@mail.ru***	**My edu application schedule**	
Consultations	**Every day 13:00-15:00/ 105 room no.**	**Location (building/room)**	**IMF 3/ 103 r.**
Form of study (daytime/correspondence/evening/distance learning)		**Course type: (compulsory/elective)**	

Osh – 2025-2026

1.Course characteristics:

2. The purpose of studying Phthisiology is for the student to acquire knowledge about tuberculosis and related respiratory diseases, their causes, pathogenesis, clinical manifestations, methods of diagnosis, treatment, and prevention, based on modern achievements in medical science, as well as the formation of general professional medical competence in matters of the etiology, epidemiology, clinical course, and public health significance of tuberculosis.

3 Objective of the course:

4. The course "Phthisiology" is aimed at teaching students the basics of diagnosis and treatment of tuberculosis. The main aspects of the course include:

- Theoretical knowledge: The study of the epidemiology of tuberculosis, pathogenesis, clinical manifestations and diagnostic methods.
- Practical skills: Training in tuberculosis treatment methods, including the use of antibacterial drugs, monitoring the effectiveness of treatment and managing complications.
- Prevention: Development and implementation of tuberculosis prevention programs, including vaccination and mass diagnosis.
- Ethical and legal aspects: Training in ethical and legal standards in the field of healthcare related to the diagnosis and treatment of tuberculosis.
- This course helps students become competent specialists in the field of diagnosis and treatment of tuberculosis, as well as improves their understanding of global challenges and strategies to combat this disease.

Prerequisites	Latin language, biochemistry, biology, normal anatomy, normal physiology, pathological physiology, pharmacology, internal diseases 1, surgical diseases 1.	
Postrequisites	Internal diseases 3, 4, surgical diseases 2, pediatrics 2, obstetrics and gynecology, clinical pharmacology, neurology, family medicine and other clinical disciplines.	
Co-requisites (if necessary)		
Learning outcomes of the discipline		
By the end of the course the student:		
RO (learning outcome)	**RO discipline**	**Competencies**
RO6	**Knows and understands:** **- Understanding** Principles of laboratory methods for diagnosing tuberculosis, such as culture methods for Mycobacterium tuberculosis,	**competences (PC)** PC-12 – Capable and ready to select individuals for monitoring based on the results of mass tuberculin testing and fluorography examination, in order to enable early detection of

	polymerase chain reaction (PCR), enzyme-linked imunosorbent assay (ELISA), and other modern diagnostic techniques. **-Can** Apply the rules for working in biological safety conditions when dealing with Mycobacterium tuberculosis and other mycobacteria, including the rules for disinfection, sterilization, and safe storage of infectious materials.	tuberculosis.
RO7	**Knows and understands:** basic and additional methods of diagnosing tuberculosis in humans. **Can-**to organize diagnostic tests for patients with suspected tuberculosis; --to apply the recommendations of the WHO clinical guidelines for the observation of tuberculosis patients **Able to-**to establish the causes of the development of active tuberculosis in humans; -to differentiate the course of various forms of tuberculosis in humans.	**Professional competences (PC)-15** - is able to analyze the patterns of functioning of individual organs and systems, use knowledge of anatomical and physiological features, basic techniques of clinical and laboratory examination and assessment of the functional state of the body of an adult and children, for timely diagnosis of diseases and pathological processes;
RO8	**Knows and understands:** types of anti-tuberculosis drugs; -types and treatment regimens of tuberculosis in humans. **Can:** -classify anti-tuberculosis drugs; -to draw up a tuberculosis treatment regimen based on drug resistance. **Able to-** identify and manage the adverse events of TB treatment; -correct/adjust the anti-tuberculosis treatment regimen based on clinical and biochemical changes; -Evaluate the results of anti-tuberculosis treatment**.**	**Professional competences (PC)- 17 –** is able and ready to perform basic therapeutic measures for the most common diseases and conditions (in adults and children, both in outpatient settings and in hospitals).
RO-11	**Knows and understands:** **-how** to study specialized literature and other scientific and technical information on the achievements of domestic and foreign science in the field of Phthisiology and tuberculosis control, based on the principles of	**Professional competences (PC)-31 -** able and willing to analyze and publicly present medical information based on evidence-based medicine

	evidence-based medicine. **-Can** conduct statistical analysis of epidemiological and clinical data on tuberculosis and prepare a report on the completed study. **-Able** to skills in how to compose reports (sections of a report) on tuberculosis and Phthisiology topics (stage, task), and present these reports at medical or scientific conferences**.**	

5. Recommended technological map for two modules within one semester (M1+M2):

Discipline	**credit**	**Audit.classes**	**SW**	**1 Module (25 points)**				**2 Module (25 points)**			**Exam. (50 points)**	
		40%	60%	**Audit.hours**		SW/ SWt	Module (r)	**Audit.hours**		SW/ SWt	**Audit. h.**	**Exam.** (E)
				Lec.	Prac.			Lec.	Prac.			
ПЦ	4	48	72	10	14	30/6		10	14	30/6		
ООЦ	4	48	72	14	10	30/6		14	10	30/6		
Points accumulation card				4	4	8	9	4	4	8	9	
Module and exam results				(M=tcp.+r+s) до 25 / 25				(M=tcp.+r+s) до 25 / 25				50
				Rдоп. = M1 + M2 (30-50)								
Final assessment				I = Rдоп. + E								100

6. Calendar and thematic plan of lectures and seminars (practical) classes
VI semester

Week		**Topic list**	**Number of hours**		**Points**
			Lecture	**Practical classes**	
Lec.	**Prac.**				
1-module					

1	1	History of Phthisiology and Epidemiology (Discovery of the tubercle bacillus (19th–20th centuries); Global and national TB epidemiology; Etiology and pathogenesis; Sources of infection and routes of spread)	2	2 https://youtu.be/6eQkA6rCnkc?si=5zWZAQ4Ab6Qr9eLh	
2	2	TB Diagnosis (Anamnesis and physical examination; Laboratory methods (microscopy, culture, PCR, IGRA); Instrumental methods; Immunodiagnostics and tuberculin diagnostics; Surgical methods)	2	2 https://youtu.be/6P6zBHpWiGA?si=-yNXuRttk_sFOek2	
3	3	TB Prevention (Specific prevention: BCG vaccination, chemoprophylaxis; BCG complications; Social prevention)	2	2 https://youtu.be/_20mkyAB7tY?si=eLMGKVS7G4JTXAv9	
4	4	Infection Control (Goals and principles of infection control; Measures: isolation, sanitation, contact tracing)	2	2 https://youtu.be/2JWku3Kjpq0?si=cGy3wLysY-Btm5T1	
5	5	Drug Resistance (Basic concepts; Forms of DR-TB (MDR, XDR, TDR)	2	2 https://youtu.be/vce3BZFo27Y?si=NWqFjNxzSsve2dd_	
6	6	Clinical Classification of TB (Classification of cases (ICD-10); TB combined with HIV: features of clinical presentation and course)	2	2 https://youtu.be/6P6zBHpWiGA?si=TnN2bxa4YfMq_0iS	
7	7	Latent Tuberculosis Infection (Diagnosis and management of LTBI)	2	2 https://youtu.be/D0V7UJT90Og?si=92QphLoVh12GzqgF	

8	8	TB in Children (Features of presentation and diagnosis; Tuberculous intoxication; Primary complex; Intrathoracic lymph nodes)	2	2 https://youtu.be/N1Qc-Ffy_WY?si=1QMuZyTuAvSok7xk	
1-module					
9	9	Pulmonary Forms of TB (Clinical presentation, diagnosis, treatment, outcomes)	2	2 https://youtu.be/tp_qdvgXtVc?si=ajkVLLBupZaAdnVF	
10	10	Extrapulmonary Forms of TB (Clinical presentation, diagnosis, treatment, outcomes)	2	2 https://youtu.be/gi2ECteueXs?si=-HemVIJ5780yiAtO	
11	11	TB Treatment (Principles of treatment; Anti-tuberculosis drugs: classification, side effects; Pathogenetic methods of treatment; Collapse therapy and operative treatment)	2	2 https://youtu.be/74Qttu8DEZI?si=FuCc6mWmVZAQNrzO	
12	12	Emergency Condition	2	2	

		(Pulmonary hemorrhages and hemoptysis; Spontaneous pneumothorax; Acute cor pulmonale; Palliative care) Modul №2		https://youtu.be/_8F7pHEGUuY?si=qrZz8zuYwo9A24vw	
		Итого:	**24h**	**24h**	

7. Plan for organizing independent work of students

	Topic of the SWT	Task for the SWT	Hours	Assessment tools	Score	Educational resources	Place (building/classroom)	Deadline
1	**Phthisiology Introduction**	History of Phthisiology and Epidemiology (Discovery of the tubercle bacillus (19th–20th centuries); Global and national TB epidemiology; Etiology and pathogenesis; Sources of infection and routes of spread)	1h	Summary of SW, preparation of situational tasks, articles	4 p.	**1. Harrison's Principles of Internal Medicine (20th ed.)**	IMF3 (102)	1-2 weeks
2.	**Instrument Methods in Phthisiology.**	1. Describe the role of ultrasound, MRI, CT, pulmonary angiography, and Bronchography in TB. 2. Explain their use in diagnosing and managing TB cases. 3. Interpret findings from these methods in clinical TB scenarios. 4. Consider ethical and patient-centered issues in using these diagnostic tools.	1h.	Preparing presentations, searching for new scientific data on the topic.	4p .	**1. TUBERCULOSIS :- A Manual for Medical Students**	IMF3 (102)	3-4 weeks
3.	**Research Methods in Phthisiology**	1. Describe molecular and genetic diagnostics (PCR, GeneXpert, and BACTEC), BAL, and induced sputum collection in TB. 2. Explain their role in diagnosing and managing TB. 3. Interpret laboratory findings from these methods in clinical cases.	1h.	Reports, articles, search for new literature	4 p.	**1. Crofton's clinical tuberculosis (3rd ed.)**	IMF3 (102)	4-5 weeks
4.	**Zoonotic Infections**	1. Describe microbiological features of plague, tularemia, anthrax, and brucellosis. 2. Explain diagnostic	1h.	Report, presentations, articles	4 p.	**1. Tuberculosis: Practical guide for clinicians,**	IMF3 (102)	4-5 weeks

		approaches for these zoonotic infections. 3. Apply findings to clinical cases involving these infections.				**nurses, laboratory technicians and medical auxiliaries**		
5.	**Airway Tuberculosis**	1. Describe clinical features of TB affecting the trachea, larynx, and bronchi. 2. Explain diagnostic methods and treatment approaches for these TB forms. 3. Apply knowledge to clinical cases involving airway TB.	1h.	Preparation of presentation, report.	4 p.	**1. TUBERCULOSIS A Manual for Medical Students**	IMF3 (102)	6-7 weeks
6.	**Tuberculosis Lung Lesion and Other related diseases.**	1. Describe clinical features of Caseous pneumonia and lung TB with other diseases. 2. Explain diagnostics, treatment, and differentiation from other pneumonias. 3. Apply knowledge to clinical cases involving pneumonia and TB combinations.	1h.	Selection of scientific literature.	4 p.	**1. Harrison's Principles of Internal Medicine (20th ed.)**	IMF3 (102)	7-8 weeks
7.	**Tuberculosis Special Forms.**	1. Describe clinical features of tuberculosis in pregnancy, Tuberculous pleurisy, and pericarditis. 2. Explain diagnostic methods and treatment strategies for these TB conditions. 3. Apply knowledge to clinical cases involving TB in pregnancy and extra pulmonary TB complications.	1h.	Taking notes, selecting statistical data**.**	4 p.	**1. Crofton's clinical tuberculosis (3rd ed.)**	IMF3 (102)	8-9 weeks

8. Basic:

Main literature:

1. Jameson, J. L., Kasper, D. L., Longo, D. L., Fauci, A. S., Hauser, S. L., & Loscalzo, J. (2018). Harrison's Principles of Internal Medicine (20th ed.). McGraw-Hill Education.

Chapter 97. Tuberculosis and Other Mycobacterial Infections. Page 503

2. TUBERCULOSIS A Manual for Medical Students. 2021

3. Rieder, H. I., Chiang, C.-Y., Gie, R. P., & Enarson, D. A. (Eds.). (2019). Crofton's clinical tuberculosis (3rd ed.). International Union Against Tuberculosis and Lung Disease.

4. Varaine, F., Rich, M. L., & Grouzard, V. (Eds.). (2014). Tuberculosis: Practical guide for clinicians, nurses, laboratory technicians and medical auxiliaries (2014 ed.). Médecins Sans Frontières & Partners In Health.

Additional literature:

1. Tuberculosis in Clinical Practice, Onn Min Kon 2021y

2. Tuberculosis: Integrated Studies for a Complex Disease, 1st Edition Nima Rezaei 2023y

3. Challenges and Advances in Tuberculosis and Mycobacterial Lung Diseases, Reprint Edition, Monika Szturmowicz, Ewa Augustynowicz 2022y

4. Phthisiatry Textbook V. A. Koshechkin 2023

I-net resources:

1. https://www.sciencedirect.com/journal/tuberculosis/issues
2. https://www.ncbi.nlm.nih.gov/books/NBK441916/
3. https://www.cdc.gov/tb/index.html
4. https://ibooks.oshsu.kg/book/?lg=3&id_parent=1195&id1=1569&id4=

9. Course Grading and Requirements for Successful Completion

I. Module Evaluation

After Completion of the Module 1 in the required curriculum, students should get minimum 1 and maximum 30 points (table 6).

The grade for the Module 1 is defined as the summary of the assessments of the current educational activity (in points).

- Module 1: There are two current controls and one summary control (module).
  For 1st Current control maximum 30 points, for 2nd Current control maximum 30 points and for summary control 30 points, in total max 30 points.

Further, in one current control there are 4 lessons and one control work. In one practical lesson, the maximum 1 point and in the control maximum 30 points, respectively, in the first current control 30 points.

Test questions will be regarding to lecture, practical and students self work materials, in the form of situational tasks, interpretation of data from laboratory and instrumental examination, demonstrate their skills in establishing a preliminary diagnosis based on physical examination, substantiate a clinical diagnosis, make a treatment plan. Summary control will be at the end of the 8th topic.

- Module 2: It is estimated the same way as in the first module. The grade for a module is defined as the sum of the assessments of the current educational activity and the evaluation of the boundary modular control (final exam), expressed on a multi-point scale (60 points).

A) Evaluation of current educational activities.

When evaluating the mastery of each topic module student points for attendance and activity in the class. This takes into account all types of work provided methodological development to study the topic.

The main difference of the control tasks from the current practical classes is that the student must demonstrate the ability to synthesize theoretical and practical knowledge acquired in one control task (semantic module). During the control tasks, the control questions, tests and situational tasks proposed in the methodological developments for students are reviewed, and practical skills are consolidated and monitored on the topics of the semantic module. Oral interview takes place on the materials of practical and extracurricular courses, lecture in the form of testing

B) The Summary control (module) takes place in two stages:

1. Oral questions
2. Written test control or situational tasks;

Evaluation of extracurricular work of students (self-work of students).

Explanations: self work of students consists of two components: classroom and extracurricular (compulsory for all students and optional) work. Students will get maximum 30 points.
Notes: Format of students self work should be deferent kind of creative work as the diagrams, posters, essay, tables, MCQs, case studies.
Alert: self work of student should be given on time according to thematic plan.
A) Classroom work. Evaluation of students self work. Self work of students, which is provided for the topic along with classroom work, is assessed during the control task.
Classroom work includes: the main didactic tasks of self work of students under the guidance of a teacher:
- Knowledge and skills acquired in the course of studying the academic course in lectures and practical classes;
- Prevent their forgetting;
- Expansion and deepening of educational material;
- Development of independent thinking and creative abilities of students.

B) Evaluation of the self work (assignment) of the student.
Students (optional) can choose one of the individual tasks on the topic of the module.
This may be:
1. Preparing a review of the scientific literature (abstract); review of Internet sources
2. Preparation of illustrative materials (Multimedia presentation, make of tables, charts, pictures, etc.);
3. Conducting research in the student scientific circle;
4. Publication of scientific reports, reports at scientific conferences, etc.;
5. Participation in Olympiads.

Points for self works are awarded to a student only if they are successfully completed and defended (prizes at relevant competitions). The number of points accrued for individual work is added to the amount of points scored by the student during the delivery of the module.

10. Final control - exam.
The final control is carried out upon completion of the study of all topics of academic course. Students who has attendance all the classroom training sessions provided for by the curriculum (practical classes, lectures) are allowed to take the final control and, when in total (1^{st} and 2^{nd} modules) taken minimum 30 points. (See Bulletin 19 OshSU).

The final control is carried out at the end of the cycle in the form of computer testing. The number of tests depends on the number of credits. For 1 credit will be from 80 to 100 test questions. The maximum in the final control is gaining up to 50 points.

Criteria for Grading Scale students' knowledge
1. Criteria for evaluating the final (intermediate) control of knowledge in the form of computer testing.
To the exam (test knowledge in several sections) are allowed
students who does not have debts for the semester and scored for current ratings and mid-term controls in the semester of at least 25 points. If a student's knowledge is rated as "unsatisfactory"(less than 30 points), then he is not allowed to the final control (exam).

The Grading Scale

Rating (Points)	**Based on letter system**	**The digital equivalent of assessment**	**Based on the traditional system**
87 – 100	A	4,0	Excellent
81– 86	B	3,33	Good
74 – 80	C	3,0	
65 -73	Д	2,33	satisfactorily
60 – 64	E	2,0	
31-60	FX	0	unsatisfactorily
0 - 30	F	0	

2. Criteria for evaluating test control
The rating of "excellent" - 87-100% overlap with the standards of answers.
The rating of "good" - 74-86% overlap with the standards of answers.
The rating of "satisfactory" - 60-73% overlap with the standards of answers.
The rating of "unsatisfactory" less than 60% overlap with the standards of answers.

10. Course policy
Requirements:
a) Mandatory attendance of classes;
b) Activity during lectures and practical classes;
c) Preparation for classes, homework and self work;
d) dress code.
Unacceptable:
a) Being late and leaving classes;
b) Using phones during classes;
c) Deception and plagiarism.
d) Untimely delivery of tasks.

"Good" deserves a response that contains:
- Knowledge of the key problems of the program and the main content of the lecture course;
- The ability to use conceptual and conceptual apparatus in the analysis of the main problems the program;
- Knowledge of the most important works in the list of recommended reading;
- The ability to perform tasks under the program;
- In general it is logically correct, but not always accurate and reasoned statement of the answer;
- Possession of knowledge on a subject matter of the full program, but has some gaps in the difficult sections, and partly on their own when leading questions gives a more or less complete answers to exam questions;
- In their answers less logical than an A student, it is not always the most significant highlights, but does not allow serious errors in the answers can solve moderately severe situational theoretical and practical tasks;
- Ownership of research methods, introduction to some of the literature of the discipline;- The student has sufficient ideological thinking and outlook
The bonus points consist of activity in the classroom, the performance of extracurricular independent work by students, scientific work, and the attendance of lectures.

Penalty points are formed from the points obtained for dishonesty, inactivity, absenteeism, etc.

Reworks
If student has had absences of studies (practical classes, lectures), due to valid reason allowed to do rework within 2 weeks following the admission. For students who missed studies without valid reason and have 3 or more passes, the decision to work out them is taken individually by the dean's office, and penalties are also charged (-2 points for 1 pass of classes or lectures).

The following procedures and technologies are used to evaluate learning outcomes in the form of knowledge: multiple choice questions (MCQs), case studies (CS) individual interview on test questions (C), written answers to questions — control work (CW), writing and protection of the abstract (P), preparation of a report (R), Colloquium (C) (interview of the teacher with the student).

EVALUATION CRITERIA (total 4 point)

- Present in class- **1 point**
- Brain storm(checking previous knowledge) 5 min- 0,5 **point**
    a) Quick answer- 0,5 p.
    b) Answer within 5 min- 0.25p.
- Team work (active learning and explanation of new topics 30 min – **1 point**

    a) active team work- 0.5 p.
    b) ability to work in a group – 0,5 p.
    c) respect and listen groupmades – -0,25 p.
    d) ability to explain new material - 0,25.
- Demonstration of practical skills 20 min – **1 point**

a)Follow the rules of deontology – 0,5 p.

b) Correctly demonstrate neurological examination – 0,5 p.

- Test control of the final level of knowledge 10 min – 1 **point**
  a. More than 7 correct answer – 1 p.
  b. Less than 7 correct answer - 0,25 p.
- Extra point – excellent work- 2 **p**.
- Penalty point- **-3 p.**
  a) Make noise - -1 point
  b) Late – -1 point
  c) Not active – -1 poin

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