

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

SUMY STATE UNIVERSITY

Academic and Research Medical Institute

Кафедра хірургії, травматології, ортопедії та фтизіатрії

PHTYSIATRICS

Higher education level	The Second
Major: study programme	222 Medicine: Medicine

Approved by Quality Council

Protocol dated _____ № _____

Chairman of the Quality Council

Petrashenko Viktoriia
Oleksandrivna

DATA ON REVIEWS AND APPROVAL

Author

Duzhyi Ihor Dmytrovych
Oleshchenko Halyna Pavlivna

Review of the course descriptor	<hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/>
Considered and approved at the meeting of the work group of Study programme Медицина	Protocol dated _____ № _____ Head of the work group (Head of the Study programme) _____ Prystupa Liudmyla Nykodymivna
Considered and approved at the meeting of the Кафедра хірургії, травматології, ортопедії та фтизіатрії	Protocol dated _____ № _____ Head of the Department _____ Duzhyi Ihor Dmytrovych

SYLLABUS

1. General information on the course

Full course name	Phtysiatics
Full official name of a higher education institution	Sumy State University
Full name of a structural unit	Academic and Research Medical Institute. Кафедра хірургії, травматології, ортопедії та фтизіатрії
Author(s)	Oleshchenko Halyna Pavlivna, Duzhyi Ihor Dmytrovych
Cycle/higher education level	The Second Level Of Higher Education, National Qualifications Framework Of Ukraine – The 7th Level, QF-LLL – The 7th Level, FQ-EHEA – The Second Cycle
Semester	1 weeks during the 9th semester
Workload	The volume of the discipline is 1 credits ECTS, 30 hours, of which 20 hours is contact work with the teacher (14 h. practical classes and 6 h. lectures), 10 hours - independent work of student
Language(s)	English

2. Place in the study programme

Relation to curriculum	Compulsory course available for study programme "Medicine"
Prerequisites	Phthiology as a discipline is based on the study of anatomy, physiology, histology, microbiology, virology and immunology, pathophysiology, pathomorphology, radiology, pharmacology, propaedeutics of internal medicine, propaedeutics of pediatrics, hygiene and ecology and integrates with these disciplines
Additional requirements	There are no specific requirements
Restrictions	There are no specific restrictions

3. Aims of the course

To form a system of knowledge about the classification of clinical forms of tuberculosis, diagnostic and treatment algorithm of various forms of tuberculosis and their complications, prevention of infection of others and reducing the risk of tuberculosis.

4. Contents

Topic 1 Examination of patients with tuberculosis (general approaches). Methods of radiation, endoscopic, laboratory and immunological diagnosis of tuberculosis. Tuberculin diagnosis.

Tuberculosis as a social, medical and scientific problem. The main stages of the development of the doctrine of tuberculosis. Risk factors for tuberculosis. Pathomorphosis of tuberculosis. The causative agent of tuberculosis, morphological structure, properties. Tuberculosis infection, ways of penetration and spread of MBT in the human body. Clinical classification of tuberculosis. Clinical examination of a patient with tuberculosis. Ways and methods of detecting tuberculosis. Population groups subject to mandatory annual fluorographic examination. Options for tactical actions for doctors of institutions of the general medical network in the detection of tuberculosis. Tuberculin diagnosis. Microbiological diagnosis of tuberculosis (microscopic, bacteriological, PCR). Methods of radiation examination of tuberculosis patients (X-ray, ultrasound, CT, MRI). Endoscopic diagnostics (bronchoscopy, thoracoscopy, mediastinoscopy). Biopsy.

Topic 2 Differential diagnosis of focal and infiltrative tuberculosis

Pathogenesis and pathomorphology, methods of detection, clinic and course of the focal form of tuberculosis. Reasons for the spread of multidrug-resistant pulmonary tuberculosis among the population. Causes of tuberculosis in AIDS patients. Pathogenesis and pathomorphology, detection methods, clinic and course of the infiltrative form of tuberculosis. Clinical and radiological variants of caseous pneumonia, features of their course.

Topic 3 Differential diagnosis of disseminated tuberculosis and spherical formations in the lungs

Pathogenesis and pathomorphology of disseminated pulmonary tuberculosis. Pathogenesis and pathomorphology of miliary tuberculosis. Pathogenesis and pathomorphology of tuberculous meningitis. Classification of pulmonary tuberculosis. Peculiarities of the clinical course of pulmonary tuberculosis, detection methods. Differential diagnosis of pulmonary tuberculoma with peripheral cancer, echinococcal cyst. Effects.

Topic 4 Differential diagnosis of fibrous-cavernous and cirrhotic tuberculosis. Extrapulmonary tuberculosis. Differential diagnosis of pleural effusion syndrome.

Causes of the formation of fibrous-cavernous tuberculosis of the lungs. Pathogenesis, pathomorphology. The main clinical syndromes, X-ray signs of fibro-cavernous and cirrhotic tuberculosis of the lungs. Clinic of tuberculosis of bones and joints, genitourinary system, gastrointestinal tract, peripheral lymph nodes. Diagnostics. Modern treatment schemes from the standpoint of evidence-based medicine. Pathogenesis and pathomorphology. Pathogenesis, pathomorphology and classification of tuberculous pleurisy. The main clinical syndromes of pleurisy. Modern diagnostic methods. Indications for pleural puncture, its method.

Topic 5 Complications of secondary forms of tuberculosis

Pathogenesis, clinic, diagnosis and principles of treatment of hemoptysis, pulmonary hemorrhage, spontaneous pneumothorax, chronic pulmonary heart and amyloidosis. Provision of emergency care from the standpoint of evidence-based medicine for pulmonary bleeding, spontaneous pneumothorax.

Topic 6 Conservative and surgical treatment of patients with tuberculosis. Non-specific therapy of tuberculosis patients. Prevention of tuberculosis (infection control, primary, secondary, specific)

General principles of treatment from the standpoint of evidence-based medicine. Antimycobacterial drugs. Features of diagnosis and treatment of HIV-infected persons from the standpoint of evidence-based medicine. Modern treatment schemes from the standpoint of evidence-based medicine according to the spectrum of MBT resistance. Levels of medical care provided by anti-tuberculosis institutions. Tasks of the anti-tuberculosis dispensary, methods and organization of its work. Participation of medical workers in the detection of tuberculosis. General principles of antimycobacterial therapy from the standpoint of evidence-based medicine. Hygienic and dietary regime in the tuberculosis clinic. Pathogenetic treatment from the standpoint of evidence-based medicine. Immunocorrective therapy, symptomatic treatment, physiotherapy from the standpoint of evidence-based medicine. Basic surgical methods of treatment for respiratory tuberculosis from the standpoint of evidence-based medicine. Sanatorium-resort treatment of tuberculosis patients from the standpoint of evidence-based medicine. Medical and social support of tuberculosis patients. Treatment monitoring. Determination of components of infectious control for tuberculosis. Work in the focus of tuberculosis infection. Social prevention. Chemoprophylaxis of tuberculosis, indications, method of implementation. Sanitary prevention, its tasks. Sanitary and educational work. BCG and BCG-M

Topic 7 Final modular control

Answer to 5 questions. Final testing

5. Intended learning outcomes of the course

After successful study of the course, the student will be able to:

LO1	Plan a scheme of examination of a patient with tuberculosis. Identify clinical forms of tuberculosis and formulate a clinical diagnosis according to the classification
LO3	Assign and explain the importance of laboratory, radiological, instrumental, microbiological methods of tuberculin testing
LO6	To determine the treatment regimens of patients with different clinical forms of tuberculosis and to determine the criteria for their treatment
LO12	Diagnose and provide emergency care in emergencies in patients with tuberculosis
LO16	Classify the foci of tuberculosis infection and use in them the principles of infection control measures.

6. Role of the course in the achievement of programme learning outcomes

Programme learning outcomes achieved by the course.

For 222 Medicine:

PO1	To detect and identify the leading clinical symptoms and syndromes (according to the List 1); to establish the most probable nosological or syndromic preliminary clinical diagnosis of diseases (according to the List 2) using standard methods, preliminary data of the patient's anamnesis, patient's examination data, and knowledge about a human, his organs and systems.
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PO2	To collect information about the patient's general condition; to assess the patient's psychomotor and physical development and the state of organs and systems of the body; to assess information on the diagnosis (according to the List 4) based on laboratory and instrumental findings.
PO3	To order and analyze additional (mandatory and optional) examinations (laboratory, radiological, functional and/or instrumental) (according to the List 4) in order to perform a differential diagnosis of diseases (according to the List 2).
PO4	To establish a final clinical diagnosis at a medical institution under control of a supervising doctor by means of informed decision and logical analysis of the obtained subjective and objective data of clinical and additional examinations, and differential diagnosis, following the relevant ethical and legal norms (according to the List 2).
PO6	To establish a final clinical diagnosis at a medical institution under control of a supervising doctor by means of informed decision and logical analysis of the obtained subjective and objective data of clinical and additional examinations, and differential diagnosis, following the relevant ethical and legal norms (according to the List 2).
PO7	To determine an appropriate work and rest mode in the treatment of diseases (according to the List 2) at a healthcare institution, at patient's home and during medical evacuation (including in the field), based on the provisional clinical diagnosis and observing the relevant ethical and legal norms, by making a reasonable decision according to existing algorithms and standard procedures.
PO8	To determine an appropriate diet in the treatment of diseases (according to the List 2) at a healthcare institution, at patient's home and during medical evacuation (including in the field), based on the provisional clinical diagnosis and observing the relevant ethical and legal norms, by making a reasonable decision according to existing algorithms and standard procedures.
PO12	To provide emergency medical assistance under any circumstances, adhering to the relevant ethical and legal norms, by making an informed decision based on the main clinical syndrome (disease severity) and emergency diagnosis (according to the List 3) using standard schemes and predetermined approach under limited time conditions based on the principles of evidence-based medicine.
PO14	To perform medical procedures (according to the List 5) at a medical facility, at home or at work on the basis of a provisional clinical diagnosis and/or health parameters through making an informed decision and adhering to the relevant ethical and legal norms.
PO16	To plan and implement a system of sanitary and preventive measures against the occurrence and spread of diseases among the population.
PO17	To analyze epidemiological situation and carry out measures of mass and individual, general and local prevention of infectious diseases.
PO18	To search for the necessary information in the professional literature and databases; to analyze, evaluate, and apply this information. To apply modern digital technologies, specialized software, statistical methods of data analysis to solve complex health problems.

PO21	To organize an appropriate level of individual safety (own and of those cared for) in case of typical dangerous situations in the individual field of activity.
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7. Teaching and learning activities

7.1 Types of training

<p>Topic 1. Examination of patients with tuberculosis (general approaches). Methods of radiation, endoscopic, laboratory and immunological diagnosis of tuberculosis. Tuberculin diagnosis.</p>
<p>lect.1 "Detection and diagnosis of tuberculosis" (full-time course)</p> <p>Tuberculosis as a social, medical and scientific problem. The main stages of the development of the doctrine of tuberculosis. Risk factors for tuberculosis. Pathomorphosis of tuberculosis. The causative agent of tuberculosis, morphological structure, properties. Tuberculosis infection, ways of penetration and spread of MBT in the human body. Clinical classification of tuberculosis. Clinical examination of a patient with tuberculosis. Ways and methods of detecting tuberculosis. Population groups subject to mandatory annual fluorographic examination. Options for tactical actions for doctors of institutions of the general medical network in the detection of tuberculosis. Tuberculin diagnosis. Microbiological diagnosis of tuberculosis (microscopic, bacteriological, PCR). Methods of radiation examination of tuberculosis patients (X-ray, ultrasound, CT, MRI). Endoscopic diagnostics (bronchoscopy, thoracoscopy, mediastinoscopy). Biopsy.</p>
<p>pr.tr.1 "Examination of patients with tuberculosis (general approaches). Methods of radiation, endoscopic, laboratory and immunological diagnosis of tuberculosis. Tuberculin diagnosis" (full-time course)</p> <p>Tuberculosis as a social, medical and scientific problem. The main stages of the development of the doctrine of tuberculosis. Risk factors for tuberculosis. Pathomorphosis of tuberculosis. The causative agent of tuberculosis, morphological structure, properties. Tuberculosis infection, ways of penetration and spread of MBT in the human body. Clinical classification of tuberculosis. Clinical examination of a patient with tuberculosis. Ways and methods of detecting tuberculosis. Population groups subject to mandatory annual fluorographic examination. Options for tactical actions for doctors of institutions of the general medical network in the detection of tuberculosis. Tuberculin diagnosis. Microbiological diagnosis of tuberculosis (microscopic, bacteriological, PCR). Methods of radiation examination of tuberculosis patients (X-ray, ultrasound, CT, MRI). Endoscopic diagnostics (bronchoscopy, thoracoscopy, mediastinoscopy). Biopsy.</p>
<p>Topic 2. Differential diagnosis of focal and infiltrative tuberculosis</p>
<p>lect.2 "Primary and secondary forms of tuberculosis and their complications" (full-time course)</p> <p>Pathogenesis and pathomorphology, detection methods, clinic and course of primary and secondary forms of tuberculosis.</p>

pr.tr.2 "Differential diagnosis of focal and infiltrative tuberculosis" (full-time course)

Pathogenesis and pathomorphology, methods of detection, clinic and course of the focal form of tuberculosis. Reasons for the spread of multidrug-resistant pulmonary tuberculosis among the population. Causes of tuberculosis in AIDS patients. Pathogenesis and pathomorphology, detection methods, clinic and course of the infiltrative form of tuberculosis. Clinical and radiological variants of caseous pneumonia, features of their course.

Topic 3. Differential diagnosis of disseminated tuberculosis and spherical formations in the lungs

pr.tr.3 "Differential diagnosis of disseminated tuberculosis and spherical formations in the lungs" (full-time course)

Pathogenesis and pathomorphology of disseminated pulmonary tuberculosis. Pathogenesis and pathomorphology of miliary tuberculosis. Pathogenesis and pathomorphology of tuberculous meningitis. Classification of pulmonary tuberculosis. Peculiarities of the clinical course of pulmonary tuberculosis, detection methods. Differential diagnosis of pulmonary tuberculoma with peripheral cancer, echinococcal cyst. Effects.

Topic 4. Differential diagnosis of fibrous-cavernous and cirrhotic tuberculosis. Extrapulmonary tuberculosis. Differential diagnosis of pleural effusion syndrome.

pr.tr.4 "Differential diagnosis of fibrous-cavernous and cirrhotic tuberculosis. Extrapulmonary tuberculosis. Differential diagnosis of pleural effusion syndrome" (full-time course)

Causes of the formation of fibrous-cavernous tuberculosis of the lungs. Pathogenesis, pathomorphology. The main clinical syndromes, X-ray signs of fibro-cavernous and cirrhotic tuberculosis of the lungs. Clinic of tuberculosis of bones and joints, genitourinary system, gastrointestinal tract, peripheral lymph nodes. Diagnostics. Modern treatment schemes from the standpoint of evidence-based medicine. Pathogenesis and pathomorphology. Pathogenesis, pathomorphology and classification of tuberculous pleurisy. The main clinical syndromes of pleurisy. Modern diagnostic methods. Indications for pleural puncture, its method.

Topic 5. Complications of secondary forms of tuberculosis

pr.tr.5 "Complications of secondary forms of tuberculosis" (full-time course)

Pathogenesis, clinic, diagnosis and principles of treatment of hemoptysis, pulmonary hemorrhage, spontaneous pneumothorax, chronic pulmonary heart and amyloidosis. Provision of emergency care from the standpoint of evidence-based medicine for pulmonary bleeding, spontaneous pneumothorax.

Topic 6. Conservative and surgical treatment of patients with tuberculosis. Non-specific therapy of tuberculosis patients. Prevention of tuberculosis (infection control, primary, secondary, specific)

lect.3 "Treatment and prevention of tuberculosis" (full-time course)

General principles of treatment from the standpoint of evidence-based medicine. Antimycobacterial drugs. Features of diagnosis and treatment of HIV-infected persons from the standpoint of evidence-based medicine. Modern treatment schemes from the standpoint of evidence-based medicine according to the spectrum of MBT resistance. Levels of medical care provided by anti-tuberculosis institutions. Tasks of the anti-tuberculosis dispensary, methods and organization of its work. Participation of medical workers in the detection of tuberculosis. General principles of antimycobacterial therapy from the standpoint of evidence-based medicine. Hygienic and dietary regime in the tuberculosis clinic. Pathogenetic treatment from the standpoint of evidence-based medicine. Immunocorrective therapy, symptomatic treatment, physiotherapy from the standpoint of evidence-based medicine. Basic surgical methods of treatment for respiratory tuberculosis from the standpoint of evidence-based medicine. Sanatorium-resort treatment of tuberculosis patients from the standpoint of evidence-based medicine. Medical and social support of tuberculosis patients. Treatment monitoring. Determination of components of infectious control for tuberculosis. Work in the focus of tuberculosis infection. Social prevention. Chemoprophylaxis of tuberculosis, indications, method of implementation. Sanitary prevention, its tasks. Sanitary and educational work. BCG and BCG-M

pr.tr.6 "Conservative and surgical treatment of patients with tuberculosis. Non-specific therapy of tuberculosis patients. Prevention of tuberculosis (infection control, primary, secondary, specific)" (full-time course)

General principles of treatment from the standpoint of evidence-based medicine. Antimycobacterial drugs. Features of diagnosis and treatment of HIV-infected persons from the standpoint of evidence-based medicine. Modern treatment schemes from the standpoint of evidence-based medicine according to the spectrum of MBT resistance. Levels of medical care provided by anti-tuberculosis institutions. Tasks of the anti-tuberculosis dispensary, methods and organization of its work. Participation of medical workers in the detection of tuberculosis. General principles of antimycobacterial therapy from the standpoint of evidence-based medicine. Hygienic and dietary regime in the tuberculosis clinic. Pathogenetic treatment from the standpoint of evidence-based medicine. Immunocorrective therapy, symptomatic treatment, physiotherapy from the standpoint of evidence-based medicine. Basic surgical methods of treatment for respiratory tuberculosis from the standpoint of evidence-based medicine. Sanatorium-resort treatment of tuberculosis patients from the standpoint of evidence-based medicine. Medical and social support of tuberculosis patients. Treatment monitoring. Determination of components of infectious control for tuberculosis. Work in the focus of tuberculosis infection. Social prevention. Chemoprophylaxis of tuberculosis, indications, method of implementation. Sanitary prevention, its tasks. Sanitary and educational work. BCG and BCG-M

Topic 7. Final modular control

pr.tr.7 "Final modular control" (full-time course)

Final testing. Answer to 5 questions

7.2 Learning activities

LA1	Self-study
LA2	E-learning in systems (MIX SSU, Lectur.ED, Google Meet)

LA3	Practical work with the patient in the specialized departments of the hospital
LA4	Preparing for Step 2
LA5	Preparation for the final control
LA6	Analysis of clinical cases
LA7	Interpretation of laboratory (clinical analysis of blood, urine, biochemical analysis of blood, mycobacteriological examination of sputum, tuberculin testing, etc.) and instrumental (ultrasound, CT, radiography, bronchoscopy, thoracoscopy, etc.) methods of examination
LA8	Preparation for practical classes
LA9	Watching educational films
LA10	Individual research project (student research paper, article, thesis, etc.)
LA11	Work with textbooks and relevant information sources
LA12	Practice of practical skills in the simulation center

8. Teaching methods

Course involves learning through:

TM1	Role-playing game
TM2	Case-based learning (CBL). Learning based on the analysis of a clinical case, situation
TM3	Team-based learning (TBL). Командно-орієнтоване навчання
TM4	Educational discussion / debate
TM5	Interactive lectures
TM6	Research-based learning (RBL). Learning through research

The discipline is taught using modern teaching methods (CBL, TBL, RBL), which not only promote the development of professional skills, but also stimulate creative and scientific activity and aimed at training practice-oriented specialists.

The discipline provides students with the following soft skills: GC 1. Ability to abstract thinking, analysis, and synthesis. GC 2. Ability to learn, master modern knowledge, and apply the knowledge in practice. GC 3. Knowledge and understanding of the subject area and professional activity comprehension. GC 4. Ability to adapt and act in a new situation. GC 5. Ability to make reasoned decisions; teamwork ability; interpersonal skills. GC 7. Ability to use information and communication technologies. GC 8. Determination and persistence on the tasks and commitments undertaken.

9. Methods and criteria for assessment

9.1. Assessment criteria

Definition	National scale	Rating scale
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9.2 Formative assessment

FA1	Peer assessment
FA2	Testing
FA3	Defense of an individual research project (speech at a conference, competition of scientific works)
FA4	Teacher's instructions in the process of performing practical tasks
FA5	Interviews and oral comments of the teacher on his results
FA6	Checking and evaluating written assignments
FA7	Solving clinical cases

9.3 Summative assessment

SA1	Evaluation of written works, surveys, solving a clinical case
SA2	Differential credit
SA3	Defense of an individual research project (incentive activities, additional points)

Form of assessment:

The semester of teaching		200 scores
SA1. Evaluation of written works, surveys, solving a clinical case		120
		120
SA2. Differential credit		80
	Answer to theoretical questions (5x10)	50
	Testing	30

Form of assessment (special cases):

The semester of teaching		200 scores
SA1. Evaluation of written works, surveys, solving a clinical case		120
	In case of quarantine restrictions, evaluation of written works, surveys, clinical case solving are carried out remotely using the platform Mix.sumdu.edu.ua, Zoom, Google meet.	120
SA2. Differential credit		80
	In case of quarantine restrictions, the differential test is carried out remotely using the platform Mix.sumdu.edu.ua, Zoom, Google meet.	80

The highest number of points based on the results of the current and final tests that a student can receive is 200 points. Assessment of current student performance is carried out at each practical lesson on a four-point scale ("5", "4", "3", "2") and is entered in the journal of academic performance. Scores set according to the traditional scale are converted into points according to the scale of conversion of traditional scores (average score to the nearest hundredth) into rating points. The maximum number of points that a student can score for current activities - 120. The minimum current number of points that a student must score in the study of all practical classes in the discipline - 72 points, which corresponds to the average score for current performance "3". Students

who have completed all types of planned educational work, worked out all missed classes by the deadline are allowed to the final modular control. In case of insufficient number of points for current classes, students have the opportunity to enter the test by preparing for the main questions of the discipline (list of questions on the site or from the teacher) and pass "Admission" to the module by answering 3 random questions from the above list. For the final modular control the student can get a maximum of 40% of the total number of points - 80, of which 20 points for testing 60 points for an oral answer (5 questions in one ticket). Incentive points are added to the assessment of the discipline for implementation of an individual research project (defense of student science work 12 points, speech at the conference 5 points, poster presentation at the conference 4 points, thesis reports 3 points).

10. Learning resources

10.1 Material and technical support

MTS1	Information and communication systems
MTS2	Library funds, archive of radiographs, spiograms, electrocardiograms, computer tomograms, results of laboratory methods of examination, tuberculin diagnostics, microbiological examination
MTS3	Computers, computer systems and networks
MTS4	Simulation center (rigid bronchoscope and collection of bronchial foreign bodies)
MTS5	Regional Clinical Phthisiopulmonology Medical Center
MTS6	Multimedia, video and sound reproduction, projection equipment (video cameras, laptops)
MTS7	Software (to support distance learning)
MTS8	Medical equipment (spirometer, electrocardiograph, bronchoscope, phonendoscope, etc.)


10.2 Information and methodical support

Essential Reading	
1	Phthysiology [Текст] : textbook / V. I. Petrenko, O. K. Asmolov, M. G. Boyko etc. ; Ed. V.I. Petrenko. — second edition. — K. : AUS Medicine Publishing, 2018. — 416 p.
2	Methodical instructions «Diagnosis of pleural diseases and pleural effusion syndrome» / compiled by I. D. Duzhyi, G. P. Oleshchenko, O. M. Lytvynenko, S. M. Kobyletskyi. – Sumy: Sumy State University, 2021. – 29 p.
Supplemental Reading	
1	Oleshchenko, G. P. 4914 Test tasks in phthysiology for the licensed integrated exam "Step-2" [Текст] : for 5th and 6th year students in specialty 222 "Medicine" / G. P. Oleshchenko. — Sumy : Sumy State University, 2020. — 36 p.
2	Handbook of Global Tuberculosis Control : Practices and Challenges / edited by Yichen Lu, Lixia Wang, Hongjin Duanmu, Chris Chanyasulkit, Amie J. Strong, Hui Zhang. — 1st ed. 2017. — New York, NY : Springer US, 2017. — XXII, 558

3	Handbook of Tuberculosis / edited by Jacques H. Grosset, Richard E. Chaisson. — 1st ed. 2017. — Cham : Springer International Publishing, 2017. — XVII, 221 p. 6 illus., 5 illus. in color.
4	Tuberculosis of the Central Nervous System : Pathogenesis, Imaging, and Management / edited by Mehmet Turgut, Ali Akhaddar, Ahmet T. Turgut, Ravindra K. Garg. — 1st ed. 2017. — Cham : Springer International Publishing, 2017. — X,
5	Igor D. Duzhyi, Halyna P. Oleshchenko, Ivan A. Hnatenko, Stanislav O. Holubnychyi. Particular qualities of the proteolytic system in patients with tuberculosis depending on the sensitivity of the pathogen. Wiadomosci Lekarskie. 2021;74(1):94-97
Web-based and electronic resources	
1	National Resource Center for Tuberculosis http://tb.ucdc.gov.ua/
2	Website of the Center for Public Health of the Ministry of Health of Ukraine http://phc.org.ua/
3	The issue of tuberculosis on the WHO website http://www.who.int/tb/en/ ; http://www.who.int/tb/ru/ .
4	Website of the National Institute of Tuberculosis and Pulmonology by F.G. Yanovsky of National Academy of Medical Sciences of Ukraine http://www.ifp.kiev.ua/index_ukr.htm
5	Department of Surgery, Traumatology, Orthopedics and Phthisiology, SSU http://gensurgery.med.sumdu.edu.ua

COURSE DESCRIPTOR

№	Topic	Total, hours	Lectures, hours	Workshops (seminars) , hours	Labs, hours	Self-study of the material, hours	Individual tasks, hours
full-time course form of study							
1	Examination of patients with tuberculosis (general approaches). Methods of radiation, endoscopic, laboratory and immunological diagnosis of tuberculosis. Tuberculin diagnosis.	5	2	2	0	1	0
2	Differential diagnosis of focal and infiltrative tuberculosis	6	2	2	0	2	0
3	Differential diagnosis of disseminated tuberculosis and spherical formations in the lungs	3	0	2	0	1	0
4	Differential diagnosis of fibrous-cavernous and cirrhotic tuberculosis. Extrapulmonary tuberculosis. Differential diagnosis of pleural effusion syndrome.	4	0	2	0	2	0
5	Complications of secondary forms of tuberculosis	3	0	2	0	1	0
6	Conservative and surgical treatment of patients with tuberculosis. Non-specific therapy of tuberculosis patients. Prevention of tuberculosis (infection control, primary, secondary, specific)	6	2	2	0	2	0
7	Final modular control	3	0	2	0	1	0
<i>Total (full-time course form of study)</i>		<i>30</i>	<i>6</i>	<i>14</i>	<i>0</i>	<i>10</i>	<i>0</i>

	<p>UNIVERSITY POLICIES FOR THE COURSE «Phthysiatrics»</p> <p>Higher education level The Second Level Of Higher Education, National Qualifications Framework Of Ukraine – The 7th Level, QF-LLL – The 7th Level, FQ-EHEA – The Second Cycle Major: Educational programme 222 Medicine: Medicine Year of study 2022 Semester one semester Mode of study full-time course Language of instruction English</p>
Teacher(s)	Oleshchenko Halyna Pavlivna, Duzhyi Ihor Dmytrovych
Contact	Oleshchenko Halyna Pavlivna g.oleschenko@med.sumdu.edu.ua
Time and room for giving consultations	Practices are held every Thursday from 15.00 and by agreement with the teacher on the basis of the department (dispensary department of KNP SOR "Regional Clinical Phthisiopulmonology Medical Center", Sumy, 15 Perekopskaya Street).
Links to online educational platforms	https://elearning.sumdu.edu.ua/works/2745/nodes/498297
Syllabus	https://pg.cabinet.sumdu.edu.ua/report/syllabus/2b4e88a645f3aa4f514c6a0bf89c6bc82277176
Channels for maintaining contact with the group for receiving and working on materials	personal account, MIX SSU, group in Viber
POLICIES	
Attendance policy	The student must attend all practical classes and at least 60% of lectures. Students who have completed all missed practical classes and 60% of lectures by the deadline are admitted to the final module control. Lectures are conducted by writing an abstract on the topic of the missed lecture (handwritten version, not less than 10 pages) and defending the abstract to the teacher who gave the lecture, or the head of the department.

<p>Assessment policy</p>	<p>The highest number of points based on the results of the current and final tests that a student can receive is 200 points. Assessment of current student performance is carried out at each practical lesson on a four-point scale ("5", "4", "3", "2") and is entered in the journal of academic performance. Scores set according to the traditional scale are converted into points according to the scale of conversion of traditional scores (average score to the nearest hundredth) into rating points. The maximum number of points that a student can score for current activities - 120. The minimum current number of points that a student must score in the study of all practical classes in the discipline - 72 points, which corresponds to the average score for current performance "3". Students who have completed all types of planned educational work, worked out all missed classes by the deadline are allowed to the final modular control. In case of insufficient number of points for current classes, students have the opportunity to enter the test by preparing for the main questions of the discipline (list of questions on the site or from the teacher) and pass the "Admission" to the module by answering 3 random questions from the above list. For the final modular control the student can get a maximum of 40% of the total number of points - 80, of which 20 points for testing 60 points for an oral answer (5 questions in one ticket).</p>
<p>Deadlines and course retake policy</p>	<p>In case of insufficient number of points for current classes, students have the opportunity to enter the test by preparing for the main questions of the discipline (list of questions on the site or from the teacher) and pass the "Admission" to the module by answering 3 random questions from the above list. The student has only 3 attempts to pass the "Admission" with an interval of preparation of at least two days. Thus the third (last) attempt of "Admission" is carried out only in the presence of the head of department. In case the student received an unsatisfactory grade for the module control, he must retake it at the 19th week in the form of testing. The maximum grade that a student can receive for module control is "3". The grade from the discipline, which the student receives in the 19th week after the re-examination of the module control, is defined as the sum of points for the current performance and 48 points for the module control. If the student did not reschedule the differential credit in the 19th week - the second reschedule is conducted in the form of testing in the presence of the commission. The maximum grade that a student can receive for modular control is "3". After the second re-addition of differential credit, all current points received by the student in the discipline are canceled. The total grade for the discipline that a student can receive after the 3rd re-examination of the module control can not be more than "3", which corresponds to 120 points. The student must reschedule the differential credit by the beginning of the next semester.</p>

Assessment appeals policy	The results of the module and semester assessment are subject to appeal. A student must lodge an appeal to the director/dean on the day of certification or after announcing the results, but no later than the next working day. The appeal commission is established by the director/dean's order. The appeal commission's decision may change the grade in case of violations revealed during the attestation.
Academic integrity policy	Participants must complete all tasks according to the course requirements independently. Participants are not allowed to cheat during the written module or summative test. The assignments should not contain plagiarism, facts of fabrication, falsification, cheating. Manifestations of other types of academic dishonesty determined by the Academic Integrity policy are also unacceptable. If a teacher reveals violations of academic integrity by students during the course, the former have the right to take one of the following actions: - to reduce points by up to 40% for practical assignments; - to give recommendations for improving and resubmitting mandatory homework assignments with the reduction of points by up to 25%; - to not accept mandatory homework assignments without the right to resubmit; - set a date for retaking the written module or the summative test with a reduction of points by up to 15%; - to not allow to retake the written module or the summative test.

Alignment of learning outcomes with teaching and learning activities and assessment

For 222 Medicine:

Competences/ learning outcomes	Learning outcomes	Types of training	Learning activities	Teaching methods	Material and technical support	Methods and criteria for assessment
PO1, PO16, PO17, PO18, PO21	LO1	lect.1, pr.tr.1, pr.tr.6-pr.tr.7	LA1, LA2, LA8, LA11	TM1, TM4, TM5, TM6	MTS1, MTS3, MTS5, MTS6	SA1, SA2, SA3
PO1, PO2, PO3, PO4, PO18	LO3	lect.1-lect.2, pr.tr.1-pr.tr.7	LA1, LA2, LA3, LA4, LA5, LA6, LA7, LA10, LA12	TM1, TM2, TM3, TM4, TM5, TM6	MTS1, MTS2, MTS3, MTS4, MTS5, MTS6, MTS7, MTS8	SA1, SA2
PO6, PO7, PO8, PO12, PO14, PO18	LO6	pr.tr.5, pr.tr.7	LA1, LA3, LA4, LA5, LA6, LA8, LA9, LA12	TM1, TM2, TM3, TM4, TM5, TM6	MTS1, MTS2, MTS3, MTS6, MTS7, MTS8	SA1, SA2, SA3
PO16, PO17, PO18, PO21	LO12	pr.tr.6-pr.tr.7	LA6, LA8, LA9, LA11	TM2, TM3, TM4	MTS2, MTS3, MTS4	SA1, SA2
PO6, PO7, PO8, PO12, PO14, PO18, PO21	LO16	lect.3, pr.tr.6-pr.tr.7	LA1, LA2, LA3, LA4, LA5, LA6, LA7, LA11	TM2, TM3, TM4, TM6	MTS1, MTS2, MTS3, MTS5, MTS6	SA1, SA2, SA3