

**MINISTRY OF HEALTH OF UKRAINE
ODESA NATIONAL MEDICAL UNIVERSITY**

Department of phthisiopulmonology

«APPROVED»



Vice-rector for scientific and pedagogical work

Eduard BURIACHKIVSKYI

September 1, 2023

**WORKING PROGRAM OF ELECTIVE EDUCATIONAL DISCIPLINE
"FEATURES OF THE WORK OF DENTISTS WITH PATIENTS SICK OF
TUBERCULOSIS"**

Higher education level: second (master's)

Area of expertise: 22 "Health care"

Specialty: 221 "Stomatology "


Educational and professional program: Stomatology

The work program is compiled on the basis of the educational and professional program " Stomatology" of training specialists of the second (master's) level of higher education in the specialty 221 " Stomatology " field of knowledge 22 "Health care" approved by the Scientific Council of ONMedU (protocol No. 8 of June 29, 2023) .

Developers:


Professor of the department, doctor of medicine, prof. Matsegora N. A.
Department assistant Zaitsev A.S.

The work program was approved at the meeting of the Department of Phthisiopulmonology
Minutes No. 1 dated August 30, 2023

Head of the department  Nina MATSEGORA


Agreed with the guarantor of the EPP  Anatoliy GULYUK

Approved by the subject cycle methodical commission for dental disciplines
Minutes No. 1 of August 31, 2023

The head of the subject cycle methodical
Committee on Stomatological Disciplines  Volodymyr KRYKLYAS

Reviewed and approved at the department meeting Department of occupational
diseases and functional diagnostics and phthisiopulmonology

Minutes No. 1 dated "04" 09 2023

Head of Department  Oleksandr Ignatiev
(signature) (First Name SURNAME)

Reviewed and approved at the department meeting _____

Minutes No. ___ dated "___" _____ 20__

Head of Department _____
(signature) (First Name SURNAME)

1. Description of the academic discipline

Name of indicators	Field of knowledge, specialty, specialization, level of higher education	Characteristics of the academic discipline
The total number of:	Branch of knowledge 22 "Health care"	<i>Full-time education</i> <i>Elective discipline</i>
Credits: 3.0	Specialty 221 "Stomatology"	<i>Year of training: 4</i>
Hours: 90		<i>Semesters 7 - 8</i>
Content modules: none	Level of higher education second (master's)	<i>Lectures (0 hours)</i>
		<i>Seminar /Practical (30 hours)</i>
		<i>Laboratory (0 hours)</i>
		<i>Independent work (60 hours)</i>
		<i>including individual tasks (0 hours)</i>
		<i>Final control form- credit</i>

2. The purpose and tasks of the educational discipline, competences, program learning outcomes

Goal: mastering a set of knowledge, skills, and abilities for carrying out anti-epidemic measures in the focus of tuberculosis infection, aimed at preventing new cases of infection and tuberculosis disease of contact persons.

Task:

1. To study the peculiarities of work of dentists with patients suffering from tuberculosis.
2. To acquire knowledge about the tuberculosis process, the conditions of infection and the disease.
3. To acquire knowledge about the source of tuberculosis infection.
4. To acquire skills and abilities to determine the clinical criteria of TB cases.
5. Master the knowledge and ability to implement the algorithm of actions of specialists of institutions/services within the framework of epidemiological surveillance of TB.
6. To master the procedure for conducting epidemiologic surveillance of contact persons with a case of TB.
7. Master preventive measures in the focus of tuberculosis infection.
8. Master the quality standards of epidemiological surveillance of TB and infection control in dentistry.
9. To acquire knowledge about measures and means to prevent infection during patient care, patients with tuberculosis.

The process of studying the discipline is aimed at forming elements of the following competencies:

General (GC):

- GC1. Ability to abstract thinking, analysis and synthesis.
- GC2. Knowledge and understanding of the subject area. and understanding of professional activities.
- GC3. Ability to apply knowledge in practical activities.
- GC7. Ability to search, process and analyze information from various sources.
- GC8. Ability to adapt and act in a new situation.

Special (SC):

- SC1. Ability to collect medical information about the patient and analyze clinical data. SK2. The

ability to interpret the results of laboratory and instrumental research.

SC5. The ability to design the process of providing medical care: to determine the approaches, plan, types and principles of treatment of diseases of the organs and tissues of the oral cavity and maxillofacial region.

SC14. The ability to plan and carry out measures for the prevention of diseases of the organs and tissues of the oral cavity and maxillofacial region.

Program learning outcomes (PLO):

PLO 1. Identify and identify leading clinical symptoms and syndromes (according to list 1); according to standard methods, using previous data of the patient's history, data examination of the patient, knowledge about the person, his organs and systems, establish a probable

nosological or syndromic preliminary clinical diagnosis of dental diseases (according to list 2).

PLO 3. Assign and analyze additional (mandatory and optional) examination methods (laboratory, radiological, functional and/or instrumental) according to list 5, patients with diseases of organs and tissues of the oral cavity and maxillofacial regions for differential diagnosis of diseases (according to list 2).

PLO 6. Plan and implement dental disease prevention measures among population to prevent the spread of dental diseases.

PLO 7. Analyze the epidemiological situation and carry out mass and individual measures, general and local drug and non-drug prevention dental diseases.

PLO 8. Determine the approach, plan, type and principle of treatment of dental disease (according to list 2) by making a reasoned decision based on existing algorithms and standard schemes.

PLO 17. Follow a healthy lifestyle, use self-regulation techniques and self-control.

As a result of studying the academic discipline, the student of higher education must:

Know:

- peculiarities of work of dentists with patients suffering from tuberculosis;
- clinical signs suspicious for tuberculosis, tactics of the dentist;
- pulmonary tuberculosis diagnosis algorithm;
- diagnosis and differential diagnosis of tuberculosis of the maxillofacial area and oral cavity;
- peculiarities of diagnosis of TB/HIV, TB/HIV/viral hepatitis B and C;
- the concept of the focus of tuberculosis infection. Categories of centers according to the degree of epidemic danger;
- infection control: administrative, engineering, individual protection;
- primary prevention (BCG vaccination);
- secondary prevention (chemoprophylaxis) of tuberculosis, indications, methods of implementation;
- sanitary and sanitary-educational prevention, their tasks;
- antimycobacterial agents and treatment regimens for tuberculosis patients;
- clinical-laboratory and instrumental monitoring of the quality and effectiveness of treatment;
- prophylactic anti-tuberculosis measures at the inpatient and outpatient stages of treatment of TB patients and categories of dispensary records;
- measures to prevent tuberculosis among persons working in anti-tuberculosis institutions;
- quality standards for epidemiological surveillance of TB and infection control;
- about measures and means aimed at preventing infection during dental care patients with

tuberculosis.

Be able:

- master the ability to diagnose various clinical forms of tuberculosis;
- to characterize the center of tuberculosis infection according to the degree of epidemic danger; determine ways of TB infection;
- formulate the basic principles of infection control;
- demonstrate knowledge and procedure for primary (BCG vaccination) tuberculosis prevention;
- determine the knowledge and procedure for secondary prevention of tuberculosis (chemoprophylaxis);
- to formulate preventive measures for sanitary and sanitary-educational prevention, their tasks;
- register tuberculosis cases;
- the procedure for carrying out clinical-laboratory and instrumental monitoring of the quality of treatment;
- demonstrate the formation of moral and ethical and deontological qualities during professional communication with the patient, as well as the principles of professional subordination.

3. Content of the academic discipline

Topic 1. General information about tuberculosis.

Definition, epidemiology, etiopathogenesis, risk factors, immunity in tuberculosis. Organization of medical care for tuberculosis patients: international standards of tuberculosis control, guidelines of the Ministry of Health of Ukraine regarding detection, diagnosis, treatment, prevention, dispensary supervision. Peculiarities of dentists' work with tuberculosis patients.

Topic 2. Methods of examining a patient with tuberculosis.

Clinical signs suspicious for pulmonary tuberculosis, tactics of a dentist. Modern approaches to the detection and diagnosis of tuberculosis. Algorithm for diagnosis of pulmonary tuberculosis. Additional methods of research on carrying out differential diagnosis.

Topic 3. The concept of the focus of tuberculosis infection.

Categories of centers according to the degree of epidemic danger. Work of a dentist in a center of tuberculosis infection.

Topic 4. Diagnosis and differential diagnosis of tuberculosis of the maxillofacial area and oral cavity, possible complications.

Peculiarities of the clinical examination of a patient with tuberculosis of the maxillofacial area and oral cavity. Management of cases with complications.

Topic 5. Diagnosis and differential diagnosis of tuberculosis of the upper respiratory tract (nose and sinuses, tonsils, larynx, trachea, bronchi) and peripheral lymph nodes.

Features of the clinical examination of a patient with tuberculosis of the upper respiratory tract (nose and sinuses, tonsils, larynx, trachea, bronchi) and peripheral lymph nodes.

Topic 6. Features of diagnosis of TB/HIV, TB/HIV/viral hepatitis.

HIV-associated tuberculosis. Pathogenesis of tuberculosis against the background of HIV infection. The most common forms, course, and treatment of tuberculosis in patients with AIDS.

Clinical features of the course of hepatitis in patients with tuberculosis.

Topic 7. Social, sanitary and sanitary-educational prevention, their tasks. Infection control: administrative, engineering, individual protection. Standards of infection control and quality of epidemiological supervision of tuberculosis patients.

Methods of implementation of social prevention of tuberculosis.

Infection control in medical care facilities of various levels.

Topic 8. Primary specific prevention of TB (BCG vaccination). Secondary specific prevention (chemoprophylaxis) of tuberculosis.

BCG vaccine. Vaccination technique. Contraindications to BCG vaccination. Assessment of local body reactions to vaccine administration. Complications of antituberculosis vaccinations.

Secondary specific prevention (chemoprophylaxis) of tuberculosis, indications, methods of implementation.

Topic 9. General principles of tuberculosis treatment. Antimycobacterial drugs. Standard treatment regimens for patients with tuberculosis.

General principles of antimycobacterial therapy: complexity, combination, controllability, duration and continuity, stage sequence, individual approach. Antituberculosis drugs (TTP): classification, doses, methods and frequency of introduction into the patient's body.

Topic 10. Clinical-laboratory and instrumental monitoring of the quality of treatment. Criteria for treatment of tuberculosis patients. The concept of chemoresistance.

Methods of evaluating the effectiveness and safety of pharmacotherapy. Adverse reactions to antimycobacterial drugs are possible.

Topic 11. Measures and means aimed at preventing infection of medical workers during dental care for patients, a patient with tuberculosis.

Peculiarities of the use of means and measures aimed at preventing the infection of medical workers in dental care facilities.

Topic 12. The main barriers that people face during TB treatment.

Peculiarities of communicating with representatives of the TV community; coverage of the legislative norms available in Ukraine for the protection of the rights of people who have encountered the problem of tuberculosis; peculiarities of providing legal assistance to patients with TB. Rights and obligations of the doctor and the patient.

4. The structure of the academic discipline

Names of topics	Seminars	SRZ	In general
Topic 1. General information about tuberculosis. Definition, epidemiology, etiopathogenesis, risk factors, immunity in tuberculosis. Organization of medical care for tuberculosis patients: international standards of tuberculosis control, guidelines of the Ministry of Health of Ukraine regarding detection, diagnosis, treatment, prevention, dispensary supervision. Peculiarities of dentists' work with tuberculosis patients.	2	8	10
Topic 2. Methods of examining a patient with tuberculosis. Clinical signs suspicious for pulmonary tuberculosis, tactics of a dentist. Modern approaches to the detection and diagnosis of tuberculosis. Algorithm for diagnosis of pulmonary tuberculosis. Additional methods of research on carrying out differential diagnostics.	2	8	10
Topic 3. The concept of the focus of tuberculosis infection. Categories of centers according to the degree of epidemic danger. The work of a dentist in a center of tuberculosis infection.	4	4	8
Topic 4. Diagnosis and differential diagnosis of tuberculosis of the maxillofacial area and oral cavity, possible complications. Peculiarities of the clinical examination of a patient with tuberculosis of the maxillofacial area and oral cavity. Management of cases with complications.	2	4	6
Topic 5. Diagnosis and differential diagnosis of tuberculosis of the upper respiratory tract (nose and sinuses, tonsils, larynx, trachea, bronchi) and peripheral lymph nodes. Features of the clinical examination of a patient with tuberculosis of the upper respiratory tract (nose and sinuses, tonsils, larynx, trachea, bronchi) and peripheral lymph nodes.	2	4	6

Topic 6. Features of diagnosis of TB/HIV, TB/HIV/viral hepatitis. HIV-associated tuberculosis. Pathogenesis of tuberculosis against the background of HIV infection. The most common forms, course, and treatment of tuberculosis in patients with AIDS. Clinical features of the course of hepatitis in patients with tuberculosis.	2	6	8
Topic 7. Social, sanitary and sanitary-educational prevention, their tasks. Infection control: administrative, engineering, individual protection. Standards of infection control and quality of epidemiological surveillance of TB patients. Methods of implementation of social prevention of tuberculosis. Infection control in medical care facilities of various levels.	4	4	8
Topic 8. Primary specific prevention of TB (BCG vaccination). Secondary specific prevention (chemoprophylaxis) of tuberculosis. BCG vaccine. Vaccination technique. Contraindications to BCG vaccination. Assessment of local body reactions to vaccine administration. Complications of antituberculosis vaccinations. Secondary specific prevention (chemoprophylaxis) of tuberculosis, indications, methods of implementation.	2	4	6
Topic 9. General principles of tuberculosis treatment. Antimycobacterial drugs. Standard treatment regimens for patients with tuberculosis. General principles of antimycobacterial therapy: complexity, combination, controllability, duration and continuity, stage sequence, individual approach. Antituberculosis drugs (TTP): classification, doses, methods and frequency of introduction into the patient's body.	4	6	10
Topic 10. Clinical-laboratory and instrumental monitoring of the quality of treatment. Criteria for treatment of tuberculosis patients. The concept of chemoresistance. Methods of evaluating the effectiveness and safety of pharmacotherapy. Adverse reactions to antimycobacterial drugs are possible.	2	4	6
Topic 11. Measures and means aimed at preventing infection of medical workers during dental care for patients, a patient with tuberculosis. Peculiarities of the use of means and measures aimed at preventing the infection of medical workers in dental care facilities.	2	4	6
Topic 12. The main barriers that people face during TB treatment. Peculiarities of communicating with representatives of the TV community; coverage of the legislative norms available in Ukraine for the protection of the rights of people who have encountered the problem of tuberculosis; peculiarities of providing legal assistance to patients with TB. Rights and obligations of the doctor and the patient.	2	4	6
Total	30	60	90

5. Topics of lectures / seminars / practical / laboratory classes

5.1. Topics of lectures

Lectures are not provided.

5.2. Topics of seminar classes

Seminar classes are not provided.

5.3. Topics of practical classes

No	TOPIC	How many hours
1	Topic 1. International standards of tuberculosis control. Modern approaches to the detection and diagnosis of tuberculosis. Standardization of clinical care. Peculiarities of dentists' work with tuberculosis patients	2
2	Topic 2. Clinical signs suspicious for pulmonary tuberculosis, tactics of the dentist. Modern approaches to the detection and diagnosis of tuberculosis. Algorithm for diagnosis of pulmonary tuberculosis. Additional research methods for the purpose of differential diagnosis. Tuberculosis of the maxillofacial area and oral cavity, possible complications.	2
3	Topic 3. The concept of the focus of tuberculosis infection. Categories of centers according to the degree of epidemic danger. The work of a dentist in a center of tuberculosis infection.	4
4	Topic 4. Diagnosis and differential diagnosis of tuberculosis of the maxillofacial area and oral cavity, possible complications. Peculiarities of the clinical examination of a patient with tuberculosis of the maxillofacial area and oral cavity. Peculiarities of curation of cases with complications.	2
5	Topic 5. Diagnosis and differential diagnosis of tuberculosis of the upper respiratory tract (nose and sinuses, tonsils, larynx, trachea, bronchi) and peripheral lymph nodes.	2
6	Topic 6. Features of diagnosis of TB/HIV (AIDS), TB/HIV/viral hepatitis.	2
7	Topic 7. Primary prevention of TB (BCG vaccination). BCG vaccine. Vaccination technique. Contraindications to BCG vaccination. Assessment of local body reactions to vaccine administration. Complications of antituberculosis vaccinations. Secondary prevention (chemoprophylaxis) of tuberculosis, indications, methods of implementation.	4
8	Topic 8. Sanitary prevention, its tasks. Measures for the prevention of tuberculosis among persons working in anti-tuberculosis institutions. Sanitary and educational work. Categories of dispensary accounting.	2
9	Topic 9. General principles of tuberculosis treatment. Antimycobacterial drugs. Standard treatment regimens for patients with tuberculosis. Antituberculosis drugs (TTP): classification, doses, methods and frequency of introduction into the patient's body.	4
10	Topic 10. The concept of chemoresistance. Clinical-laboratory and instrumental monitoring of the dynamics of TB patient treatment. Observation of the condition of tuberculosis patients during treatment. Methods of evaluating the effectiveness and safety of pharmacotherapy. Adverse reactions to antimycobacterial drugs are possible.	2
11	Topic 11. Measures and means aimed at preventing infection of medical workers during dental care for patients, a patient with tuberculosis.	2
12	Topic 12. The main barriers faced by dentists during TB treatment. Peculiarities of communicating with representatives of the TV community; coverage of the legislative norms available in Ukraine for the protection of the rights of people who have encountered the problem of tuberculosis; peculiarities of providing legal assistance to patients with TB. Rights and obligations of the doctor and the patient.	2
	Total:	30

5.4. Topic of laboratory classes

Laboratory classes are not provided.

Independent work of students of higher education

No	TOPIC	How many hours
1	Topic 1. Definition of tuberculosis as a disease. The main epidemiological indicators (infectivity, morbidity, morbidity, mortality) and their dynamics over the past 10-15 years. Spread of tuberculosis in countries with different levels of economic development. The causative agent of tuberculosis, morphological structure, properties. Types of Mycobacterium tuberculosis (MBT) and their epidemiological significance. Variability of MBT (L-forms, filtering forms; persistence, reversion). Chemoresistant MBT and their clinical significance. Atypical mycobacteria. Stability of MBT in the environment. Sources of tuberculosis infection. Release of mycobacteria into the environment. Ways of tuberculosis infection. Risk factors for tuberculosis. Pathogenesis of tuberculosis. Immunity in tuberculosis. Genetic factors of tuberculosis disease, the nature of its course in sensitive and drug-resistant forms. Clinical classification of tuberculosis	8
2	Topic 2. Diagnosis and differential diagnosis of pulmonary tuberculosis. Leading methods of examination of a patient with tuberculosis. List of symptoms, diseases and risks, in which the patient is examined for the presence of tuberculosis in health care institutions Basic diagnostic minimum. Additional research methods for the purpose of differential diagnosis. Laboratory diagnosis of tuberculosis.	8
3	Topic 3. Center (focus) of tuberculosis infection in dental practice. Categories of centers according to the degree of epidemic danger. The work of a dentist in a center of tuberculosis infection: the doctor's tactics when identifying a patient with tuberculosis. The procedure for registering a case of a patient with TB. Peculiarities of dentists' work with tuberculosis patients.	4
4	Topic 4. Etiopathogenesis of tuberculosis of the maxillofacial area and oral cavity; pathomorphology, clinical forms, diagnosis and differential diagnosis, classification. Complications, their treatment and prevention.	2
5	Topic 5. Etiopathogenesis of tuberculosis of the upper respiratory tract (nose and sinuses, tonsils, larynx, trachea, bronchi) and peripheral lymph nodes. Pathomorphology, clinical forms, classification. Diagnosis and differential diagnosis. Features of the clinical course. Complication. Providing emergency care.	2
6.	Topic 6. Extrapulmonary tuberculosis. Features of clinical signs and diagnosis of TB/HIV (AIDS), TB/HIV/viral hepatitis. Clinical and laboratory symptoms and syndromes of kidney and liver dysfunction. Diagnosis, differential diagnosis of HIV/AIDS, hepatitis and co-infections. Complication. Treatment. Rules for conducting diagnostic and therapeutic procedures. Conditions of protection of medical personnel.	6
7	Topic 7. Specific prevention of TB. Primary prevention of TB (BCG vaccination). BCG vaccine. Vaccination technique. Contraindications to BCG vaccination. Assessment of local body reactions to vaccine administration. Complications of antituberculosis vaccinations. Secondary prevention	4

	(chemoprophylaxis) of tuberculosis, indications, method of implementation, effectiveness.	
8	Topic 8. Sanitary prevention, its tasks. Measures for the prevention of tuberculosis among persons working in anti-tuberculosis institutions. Prevention of infection of people from animals with tuberculosis. Sanitary and educational work. Categories of dispensary accounting.	4
9	Topic 9. General principles of tuberculosis treatment. Antimycobacterial drugs. Standard treatment regimens for patients with tuberculosis. General principles of antimycobacterial therapy Antituberculosis drugs (TTP): classification, doses, methods and frequency of introduction into the patient's body. Standard regimens of chemotherapy.	6
10	Topic 10. Chemical resistance of the base in relation to formation, types, tactics of the dentist. Observation of the condition of tuberculosis patients during treatment. Methods of evaluating the effectiveness and safety of pharmacotherapy. Adverse reactions to antimycobacterial drugs. Peculiarities of pharmacotherapy of tuberculosis in pregnant women, in patients with kidney and liver pathology, in HIV-infected patients.	4
11	Topic 11. Clinical-laboratory and instrumental monitoring of the quality of treatment. Criteria for treatment of tuberculosis patients. Preventive measures at the inpatient and outpatient stages of TB treatment	4
12	Topic 12. Psychological aspects of the formation of stigmatization and discrimination of patients with TB and combined pathology (TB/HIV/viral hepatitis), Highlighting the existing legislative norms for the protection of the rights of people who have encountered the problem of tuberculosis in Ukraine. Rights and obligations of the doctor and the patient. Peculiarities of providing legal assistance to patients with TB.	4
	Total:	60

7. Teaching methods

Practical training: is provided by methodical developments for each lesson, visual teaching aids for each lesson (presentations, video lectures), information resource of the department, structured algorithms of skill control.

Independent work: applicants are provided with methodical developments for independent work, visual teaching aids (video lectures, presentations), information resource of the department, topics of independent work, structured algorithms of skill control; independent work involves working with recommended basic and additional literature, with electronic information resources, with a bank of Step test tasks, solving clinical tasks.

8. Forms of control and assessment methods (including criteria for evaluating learning outcomes)

Current control: oral answer to questions based on the material of the current topic; solving typical and atypical clinical situational problems; control of practical skills; testing

Final control: balance

Evaluation of the current educational activity in a practical session:

- Evaluation of theoretical knowledge on the subject of the lesson:
 - methods: survey, solving a situational clinical problem
 - the maximum score is 5, the minimum score is 3, the unsatisfactory score is 2.
- Assessment of practical skills:
 - the ability to properly treat a patient, prescribe and interpret the results of laboratory and instrumental examination, substantiate the diagnosis based on the analysis of clinical and

auxiliary methods of examination, determine the degree of epidemiological danger and carry out epidemiological measures in the focus of tuberculosis infection.

- the maximum score is 5, the minimum score is 3, the unsatisfactory score is 2.

The grade for one practical session is the arithmetic average of all components and can only have a whole value (5, 4, 3, 2), which is rounded according to the statistical method.

Current assessment criteria for practical training:

Rating	Evaluation criteria
Perfectly "5"	The applicant is fluent in the material, takes an active part in discussing and solving a situational clinical problem, confidently demonstrates practical skills during the examination of a patient and the interpretation of data from clinical, laboratory, instrumental studies and the patient's epidemiological anamnesis, expresses his opinion on the subject of the lesson, demonstrates clinical thinking.
Fine "4"	The applicant has a good command of the material, participates in the discussion and solution of the situational clinical problem, demonstrates practical skills during the examination of the patient and the interpretation of data from clinical, laboratory, instrumental studies and the epidemiological history of the patient with some errors, expresses his opinion on the topic of the lesson, demonstrates clinical thinking.
Satisfactorily "3"	The acquirer does not have sufficient knowledge of the material, is unsure of participating in the discussion and solution of the situational clinical problem, demonstrates practical skills during the examination of the patient and the interpretation of data from clinical, laboratory, instrumental studies and the epidemiological history of the patient with significant errors.
Unsatisfactorily "2"	The acquirer does not possess the material, does not participate in the discussion and solution of the situational clinical problem, does not demonstrate practical skills during the examination of the patient and the interpretation of the data of clinical, laboratory, instrumental studies and the epidemiological history of the patient.

Credit is given to the applicant who has completed all the tasks of the work program of the academic discipline, actively participated in practical classes and has an average current grade of at least 3.0 and has no academic debt.

Test is carried out: at the last lesson before the beginning of the examination session - with the tape system of learning, at the last lesson - with the cyclical system of learning. The credit score is the arithmetic mean of all components on a traditional four-point scale and has a value that is rounded using the statistical method with two decimal places after the decimal point.

9. Distribution of points received by students of higher education

The obtained average score for the academic discipline for applicants who have successfully mastered the work program of the academic discipline is converted from a traditional four-point scale to points on a 200-point scale, as shown in the table:

Conversion table of a traditional assessment into a multi-point scale

National score for the discipline	The sum of scores for the discipline
Excellent («5»)	185 – 200
Good («4»)	151 – 184
Satisfactory («3»)	120 – 150

Unsatisfactory («2»)	Less than 120
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A multi-point scale (200-point scale) characterizes the actual success of each applicant in learning the educational component. The conversion of the traditional grade (average score for the academic discipline) into a 200-point grade is performed by the information and technical department of the University.

According to the obtained points on a 200-point scale, the achievements of the applicants are evaluated according to the ECTS rating scale. Further ranking according to the ECTS rating scale allows you to evaluate the achievements of students from the educational component who are studying in the same course of the same specialty, according to the points they received.

The ECTS scale is a relative-comparative rating, which establishes the applicant's belonging to the group of better or worse among the reference group of fellow students (faculty, specialty). An "A" grade on the ECTS scale cannot be equal to an "excellent" grade, a "B" grade to a "good" grade, etc. When converting from a multi-point scale, the limits of grades "A", "B", "C", "D", "E" according to the ECTS scale do not coincide with the limits of grades "5", "4", "3" according to the traditional scale. Acquirers who have received grades of "FX" and "F" ("2") are not included in the list of ranked acquirers. The grade "FX" is awarded to students who have obtained the minimum number of points for the current learning activity, but who have not passed the final examination. A grade of "F" is assigned to students who have attended all classes in the discipline, but have not achieved a grade point average (3.00) for the current academic activity and are not admitted to the final examination.

Applicants who study in one course (one specialty), based on the number of points scored in the discipline, are ranked on the ECTS scale as follows:

Conversion of the traditional grade from the discipline and the sum of points on the ECTS scale

ECTS' s mark	Statistical indicator
«A»	the best 10% of students
«B»	the next 25% of students
«C»	the next 30% of students
«D»	the next 25% of students
«E»	the next 10% of students

10. Methodological support

- Working program of the academic discipline
- Syllabus
- Methodical developments for practical classes
- Methodical recommendations for independent work of higher education applicants
- Multimedia presentations
- Situational clinical tasks

11. Questions for preparing for the final inspection

1. The causative agent of tuberculosis, its types and forms of existence (L-forms), properties.
2. The contribution of outstanding scientists to the development of phthisiology (R. Koch,

- Calmette and K. Guerin, Z. Vaksman, M.A. Linnikova).
3. Sources of tuberculosis infection. Release of mycobacteria into the environment. Ways of tuberculosis infection. Pathogenesis of tuberculosis.
 4. Clinical classification of tuberculosis.
 5. Types of tuberculosis prevention.
 6. Types of sanitary and sanitary-educational prevention of TB, their tasks.
 7. Components of infection control (administrative, engineering, individual protection).
 8. Primary and secondary prevention of tuberculosis.
 9. Categories of foci of tuberculosis infection according to epidemic risk.
 10. Clinical signs suspicious for pulmonary tuberculosis, tactics of a dentist.
 11. Algorithm for diagnosis of pulmonary tuberculosis.
 12. Diagnosis and differential diagnosis of tuberculosis of the maxillofacial area and oral cavity.
 13. Diagnosis and differential diagnosis of tuberculosis of the upper respiratory tract.
 14. Features of diagnosis of TB/HIV, TB/HIV/viral hepatitis.
 15. Antimycobacterial agents and treatment regimens for patients with tuberculosis.
 16. Clinical-laboratory and instrumental monitoring of the quality and effectiveness of treatment.
 17. Prophylactic anti-tuberculosis measures at the inpatient and outpatient stages of treatment of TB patients and categories of dispensary records.
 18. Measures and means for the prevention of tuberculosis among persons working in anti-tuberculosis institutions.
 19. Risk factors when dentists work with TB patients;
 20. Peculiarities of dentists' work with tuberculosis patients.
 21. Quality standards for epidemiological surveillance of TB and infection control.
 22. Aboutmeasures and means aimed at preventing infection during dental carepatients with tuberculosis.
 23. Registration of tuberculosis cases.
 24. To demonstrate the formation of moral, ethical and deontological qualities during professional communication with the patient, as well as the principles of professional subordination.
 25. Psychological aspects of formation of stigmatization and discrimination of patients with TB and combined pathology (TB/HIV/viral hepatitis).
 26. Elucidation of the existing legislative norms in Ukraine for the protection of the rights of people who have encountered the problem of tuberculosis.

12. Recommended literature

Main:

1. Order of the Ministry of Health of Ukraine on the approval of the standards of medical care "Tuberculosis" dated January 19, 2023 No. 102
2. Order of the Ministry of Health of Ukraine No. 530 of February 25, 2020 "Health care standards for tuberculosis." URL:https://phc.org.ua/sites/default/files/users/user90/NakazMOZ_vid_25.02.2020_530_Standarty_medopomogy_pry_TB.pdf
3. TUBERCULOSIS Clinical guideline of the Ministry of Health of Ukraine, based on evidence No. KH 2021-530 dated 11/17/2021. URL: <https://www.dec.gov.ua/mtd/tuberkuloz/>.
4. Order of the Ministry of Health of Ukraine dated March 9, 2021 No. 406 "On approval of the Procedure for epidemiological surveillance of tuberculosis and changes to the criteria for determining cases of infectious and parasitic diseases subject to registration".
5. Order of the Ministry of Health of Ukraine No. 287 dated February 1, 2019 "On the approval of the Infection Control Standard for health care institutions that provide assistance to tuberculosis patients" URL: <https://zakon.rada.gov.ua/laws/show/z0408-19#Text>.
6. Order of the Ministry of Health of Ukraine dated June 5, 2019 No. 1292 "On the approval

of a new Clinical Protocol for the use of antiretroviral drugs for the treatment and prevention of HIV infection."

7. Extrapulmonary tuberculosis. Textbook. / Matsegora N.A., Maricherda V.G., Antonenko P.B. [etc.] in general Ed. ON. Matsehora – 2022. – Odesa. - 430 p. (26.88 printed sheets).

8. Tuberculosis Clinical guideline of the Ministry of Health of Ukraine, based on evidence No. KH 2021-530 dated 11/17/2021. URL: <https://www.dec.gov.ua/mtd/tuberkuloz/>

9. "Physiology" study guide for students of higher medical educational institutions of the IV level of accreditation / Melnyk V.P., Panasyuk O.V., Raznatovska O.M. etc.; under the editorship Melnyka V.P. - K.: "Knyga-plus", 2022.

Additional:

1. Prevention of tuberculosis. Study guide for students and interns of VNMZ IV accreditation level and doctors / V. I. Petrenko, M. G. Dolynska, A. V. Aleksandrin, V. V. Petrenko. Kyiv: 2 Print, 2017. 88 p. URL: <http://tb.ucdc.gov.ua/uploads/files/prophilaktica.pdf>.

13. Electronic information resources

1. Website of the Public Health Center of the Ministry of Health of Ukraine. <http://phc.org.ua/>
2. Tuberculosis issues on the WHO website. <http://www.who.int/tb/en/>
3. National Tuberculosis Resource Center. <http://tb.ucdc.gov.ua/>
4. Stages of HIV-AIDS. www.ifp.kiev.ua > doc > people > vil-pop > vil-pop5
5. TB/HIV site. <https://aph.org.ua/uk/nasha-robota/ukraine/gf/>