

# Curriculum



## Diploma in Tuberculosis and Chest Diseases (DTCD)

**Bangabandhu Sheikh Mujib Medical University  
Shahbagh, Dhaka.**

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1. Name of the course : **Diploma in Tuberculosis and Chest Diseases (DTCD)**
2. Duration : Two academic years
3. Date of commencement : July of each year
4. Aims and objectives :

To prepare pulmonologists who would be able to meet and respond to healthcare needs of the vast majority of the population suffering from respiratory illnesses. They will be able to act as safe independent practitioners whilst recognizing the limitation of their own expertise and are able to recognize their obligation to seek assistance of colleagues where appropriate.

**5. Eligibility for admission:**

- a. MBBS or its equivalent degree recognized by BMDC
- b. Minimum two years after passing MBBS or its equivalent degree recognized by BMDC

**6. Admission Test:**

Entrance examination will be MCQ type, containing 60% of questions from basic subjects related to the practice related to Respiratory Medicine and 40% from clinical Respiratory Medicine

**7. Course content:**

Paper 1 (Basics)

Group A: basic sciences related to diseases of the chest

Group B: General principles/ aspects of chest diseases related to Internal Medicine or General Surgery

Paper II (Tubercular diseases)

Group A: Pulmonary tuberculosis

Group A: Extra pulmonary tuberculosis

Paper III (non-tubercular chest diseases)

Group A: Obstructive airway diseases (asthma & COPD)

Group B: Chest Diseases other than obstructive airway diseases

## **8. Summative Examination:**

- 8.1. Summative or exit examination will be at end of 2 years training & then January & July of each year, the date determined by the university
- 8.2. There will be three papers on written examination: In each paper there will be two groups: A & B. In each paper there will be four questions. Two of them will be Structured Essay type and two will be of SAQ, five in each question
- 8.3. Clinical-practical:

**Clinical:** There will be one long case and minimum three short cases. The long case and short cases should cover the both tubercular and non-tubercular diseases. If one candidate examines long case of tubercular disease, then he will mostly examine short cases of non-tubercular diseases and vice-versa. In long case 30 minutes will be for history taking and examination and 15 minutes for

crossing by two examiners. Fifteen minutes will be allotted for short cases. Two examiners will assess the candidate in long case. Two examiners will assess short cases of opposite group of students.

**Practical/OSCE:** 10 stations

- 8.4. **Oral:** There will be two boards: Board I for Tubercular diseases and Board II for no-tubercular diseases. In each board there will be two examiners. Fifteen minutes for each board equally divided into two examiners. There will be 4 examiners, Associate professor and above amongst which one must be from Internal Medicine. 50% of the examiner will be external.
- 8.5. To pass, the candidate have to secure at least 60% marks in each of the three components of written (three paper combindly), clinical-practical and oral examination

<b>Components of examination</b>	<b>Paper</b>	<b>Marks allotted</b>	<b>Time</b>	<b>Pass marks</b>
<b>i) Written</b>	Paper – I	100	3 hours	180
	Paper – II	100	3 hours	
	Paper - III	100	3 hours	
<b>ii) Clinical- Practical</b>	Clinical	100		120
	Practical/OSCE	100		
<b>iii) Oral</b>		100		60
<b>Total</b>		<b>600</b>		<b>360</b>

## **9. Formative assessment:**

There will formative assessment at the end of each six months of training by the supervisor/department or by the institute. Three satisfactory certificates will be pre-requisite along with others for appearing in the final exit examination

## **10. Core Clinical Syllabus**

### 10.1. Anatomy

Anatomy of Thorax

Anatomy of Bronchial tree

Blood supply, Nerve supply & lymphatic drainage of lungs

## 10.2. Physiology

Physiology of Respiratory tract

Defense mechanism in respiratory tract

Control of Respiration

Lung Volumes & Capacities

Lung Functions

Respiration and Acid base balance

Physiology of Respiration Failure

## 10.3. Pathology

Introduction to Pathology (Inflammation, Degeneration, Infarction, Granuloma)

Circulatory disturbances in lungs (Congestion, Edema, Embolism etc)

Pathology of Pulmonary and Extra-Pulmonary Tuberculosis

## 10.4. Microbiology

Mycobacteria (History, Habitat, Classification)

Mycobacterium Tuberculosis hominis, bovis and Atypical Mycobacteria

Normal flora of throat



Streptococci and Pneumococci,  
pseudomonas, Haemophilus influenzae,  
coliform bacilli

Respiratory parasites

Respiratory viruses

Respiratory Fungi

#### 10.5. Pharmacology

Anti tuberculous chemotherapy

Anti asthma drugs

Methods of antiasthma drug delivery system

Antibiotics used for respiratory diseases

Anti viral drugs used in respiratory diseases

Systemic anti fungal drugs

#### 10.6. Tubercular diseases

Etiology of pulmonary Tuberculosis

Epidemiology of pulmonary Tuberculosis

Pathogenesis of Tuberculosis (Primary, Post-  
primary, Miliary)

Clinical features of pulmonary Tuberculosis

Diagnosis of pulmonary Tuberculosis

Diagnosis of extra-pulmonary tuberculosis

Case finding of pulmonary Tuberculosis  
Tuberculin test  
B.C.G Vaccine  
Complications of pulmonary tuberculosis  
Treatment of pulmonary tuberculosis  
(Chemotherapy, Drug Resistance, Drug toxicity, Retreatment, Mass treatment, Chemoprophylaxis)  
Cutaneous manifestation of drug reaction  
Surgery in pulmonary tuberculosis (Scope and Indication)  
Pulmonary Tuberculosis in Children  
Rehabilitation of Tuberculosis patients  
Tuberculosis control including NTP  
Atypical Mycobacterium  
Role of Voluntary Organizations in Tuberculosis control  
Tubercular Lymphadenitis  
Pleural and Pericardial Effusion  
Genito- urinary Tuberculosis  
Abdominal Tuberculosis  
TB/Meningitis

Tuberculosis of Bones and Joints

Cutaneous Tuberculosis

Adverse drug reaction to anti-TB drugs & their management

10.7. Non-tubercular chest diseases

Congenital anomalies of thoracic organs

Pneumonias, Lung Abscess and Bronchiectasis

Mycotic Diseases of lung

Hydatid diseases and other parasitic diseases

Viral & Rickettsial pneumonia

Allergic Rhinitis

Bronchial Asthma

Sarcoidosis

Other non-specific diseases of lungs

Pulmonary Eosinophilia and Tropical

Eosinophilia

Collagen diseases

Occupational lung disease

Chronic Bronchitis, Emphysema/COPD

Fibrosing alveolitis

Diffuse Parenchymal Lung Disease

Chronic Respiratory Insufficiency  
Acute Respiratory Failure  
Pulmonary Hypertension  
Pulmonary Embolism  
Congestive cardiac failure  
Bronchial Carcinoma  
Non- pulmonary manifestations of Bronchial carcinoma  
Tumors of Mediastinum  
Pleural Effusion (Non- Tubercular),  
Empyema and Pneumothorax  
Pleural tumors  
Injuries of Chest  
Foreign body in esophagus and tumors of esophagus  
Diseases of Mediastinum  
Diseases of Diaphragm  
Physiotherapeutic measures in lung diseases  
Special investigations in Chest diseases  
Electrocardiogram & Echocardiogram

10.8. General principles/ aspects of diseases of the chest related to Internal Medicine or General Surgery

Symptoms of Chest Diseases

Diagnosis of Chest Diseases

Surgery in diseases of chest

Medical and/or surgical conditions affecting the chest

**11. Procedural Skill**

Sputum collection and microscopy for AFB stain and CS

Bronchoscopy

Bronchogram

Pleural fluid aspiration

Pleural biopsy

Insertion of chest tube and its maintenance

Water seal drainage

**12. Radiological competencies**

Collapse and consolidation

Pleural effusion, Pneumothorax and obstructive airway diseases

Inflammatory diseases of Lungs and obstructive airway diseases

Neoplasm of Lungs  
Pulmonary and extra-pulmonary  
Tuberculosis  
Mediastinal diseases  
Diseases of esophagus

**13. Writing case-note**

Each student will write case-note (History, Examination, Treatment, Investigation and follow up) of 20 T.B. and 10 non T.B. patients during the Course

**14. Training Rotations**

Students will be sent/ placed to T.B. Control/ Rural Health Centers/ Industrial Units/ICU for a period to gain field experiences during the Course.

**15. Eligibility for appearing in the final examination:**

- a) Two years in-course training
- b) 3 satisfactory 6 monthly report of formative assessment
- c) Satisfactorily completed logbook including Case book



## **Diploma trainee's Block progress report**

Name of the trainee : Session :

Name of the course : Reg. No:

Name of the institute :

Period of block :

<b>Performance</b>	<b>Poor</b>	<b>Satisfactory</b>	<b>Good</b>	<b>Excellent</b>
Written*				
Clinical- Practical*				
Oral*				
Attendance*				
Attitude				

\* Poor: <50%, Satisfactory: ≥50-60%, Good: >60-75%, Excellent : >75%

**Note:** "Poor" grade in more than two performance during a particular block means deficient training and also cause disqualification for appearing in the final examination unless training in particular block is complete.

Signature: .....  
Head of the Department  
(Seal)