COURSE SPECIFICATION

(Chest Medicine & Respiratory Critical Care)

Faculty of Medicine- Mansoura University

(A) Administrative information

(1) Programme offering the course:	**MD degree of chest medicine**
(2) Department offering the programme:	Chest Medicine Department
(3) Department responsible for teaching the course:	Chest Medicine Department
(4) Part of the programme:	Second Part
(5) Date of approval by the Department`s council	**15-3-2016**
(6) Date of last approval of programme specification by Faculty council	9-8-2016
(7) Course title:	**Chest medicine &respiratory critical care**
(8) Course code:	**CHEST611**
(9) Credit hours: (10) Total teaching hours:	24 credit hours(360 h lectures) 15 credit hours (450h practical)

(B) Professional information

(1) Course Aims:

The broad aims of the course are as follows: (either to be written in items or as a paragraph)

1- **To produce graduate able to design proper diagnostic and therapeutic plan in different chest diseases**

2- **To produce graduate able to acquire the competence and experience in history taken, clinical examination and radiological interpretation.**

3- **To produce graduate able to acquire the competence and experience in fiberoptic bronchoscopy and other interventions**

(2) Intended Learning Outcomes (ILOs):

Intended learning outcomes (ILOs); Are four main categories: knowledge & understanding to be gained, intellectual qualities, professional/practical and transferable skills.

On successful completion of the course, the candidate will be able to:

A- Knowledge and Understanding

A1-recognize advances in clinical approach to cardinal chest symptoms (cough, expectoration, dyspnea, hemoptysis, wheezes and chest pain)

A2- Discuss indication, contraindications advanced, techniques and complications of different diagnostic procedures

A3- recognizes advanced guidelines for diagnosis and treatment of COPD

A4- Discuss recent pneumonia guidelines in its diagnosis, risk stratification and treatment

A5-recognize different types of pleural effusion and how to reach diagnosis of different types(transudative,exudative pleural effusion)

A6-define updates in spontenous and traumatic pneumothorax and how to differentiate between them

A7-recognize updates in causes and treatment of pneumonia in special hosts (HIV,organ transplantation)

A8-identify recent guidelines in diagnosis and treatment of pulmonary hypertension and pulmonary embolism

A9- Discuss different types of vasculitis and how to suspect, diagnose those with chest involvement

A10-recognize advanced principles of mechanical ventilation and neutrition guidelines in ICU (enteral and parentral neutrition)

A11- Discuss recent guidelines in diagnosis of pulmonary TB, extrapulmonary tuberculosis and interstitial lung diseases.

A12- recognizes the updates in liver, endocrine, renal, hematological and neurological chest relationship

A13- Discuss updates in paraneoplastic syndromes associate lung cancer

A14-recognize advanced diagnostic and treatment stratigies of of lung cancer

A15-identify updates in pleural tumors and how to diagnose and treat

A16- classify different chest wall abnormalities and their impact on chest function

B- Intellectual skills

B1- Able to interpret pulmonary symptoms , suspect the provisional diagnosis and reach final diagnosis

B2- able to select proper antibiotics in different chest infection and in different situation

B3 able to interpret ABG properly

B4 able to choose proper non invasive positive pressure ventilation according to patient condition and proper pressure adjustment

B5 proper advanced chest Xray, CT interpretation

C- Professional/practical skills

C1- able to take history properly (chest sheet and sleep sheet)

C2- able to perform general and local examination effectively

C3-proper patient preparation before any diagnostic or therapeutic procedure

C4- able to perform advanced diagnostic and therapeutic fiberoptic bronchoscopy techniques effectively

C5- able to perform advanced diagnostic and therapeutic medical thoracoscopy techniques effectively

C6- able to perform various techniques of radiology guided lung and pleural biopsies (ultrasound or CT)

C7- proper ventilator management and ventilator graphics interpretation with proper intervention

C8- able to apply infection control program and describe it to health care workers

C9- able to perform skin prick test and tuberculine skin test accurately and interprete them properly.

C10- able to perform pulmonary function tests properly and effective interpretation of report

C11-can place polysomnography electrodes in its proper position and able to deal with any technical error

D- Communication & Transferable skills

D1- Develop communication and presentation skills

D2- Demonstrate teamwork and interpersonal skills

D3- Competently use information technology

D4- Demonstrate competence in problem solving

D5- Develop personal and career development plan

D6- Develop an autonomous and effective approach of lifelong learning

D7- Develop professional, ethical and legal practice

(3) Course content:

Subjects	Lectures	Practical	Total Teaching Hours
Module1 **Diagnostic Procedures:** 1. Radiographic evaluation of the chest. 2. Interventional radiology 3. Pulmonary function testing. 4. Bronchoscopy. 5. Transthoracic needle aspiration 6. Thoracoscopy. 7. Cardiopulmonary exercise testing. 8. Evaluation of disability due to lung diseases.	**5** **5** **5** **5** **5** **5** **5** **5**		

Subjects	Lectures	Practical	Total Teaching Hours
1- Scintigraphic evaluation of lung diseases. **Clinical Approach To The Patient With Respiratory Symptoms.** **Chronic obstructive pulmonary diseases:** **Medicolegal And Ethical Aspects And Patient's Safety.** Module2 1. Appraoch to the patient with pulmonary infection., Radiology, Pathology. 2. Principles of antibiotic use in peumonia, Vaccination against pulmonary infections. Pulmonary infections in special hosts: Common syndromes in pulmonary infectious diseases: Genetic and molecular changes of lung cancer. Pulmonary hypertension and corpulmonale. Pulmonary embolism. Pulmonary vasculitis & Pulmonary AVM. ***Mycobacterial infections*** ***Fungal pulmonary infections.*** **Pulmonary Neoplasms:** Module3 1. Oxygen therapy and pulmonary oxygen toxicity. 2. Pulmonary pharmacotherapy. 3. Intubation and upper airway management & Hemodynamic and respiratory monitoring in acute respiratory failure. Priciples of mechanical ventilation & Nutrition in acute respiratory failure.	**5** **10** **10** **10** 10 10 10 10 10 10 10 10 10 5 10 10 5 5 5 10 10		

Subjects	Lectures	Practical	Total Teaching Hours
Occupational lung disorders: general principles and approach & Chronic beryllium diseases and hard metal lung diseases.	5		
Asbestos-related lung disease & Coal workers lung diseases and silicosis.	10		
Sleep-Related Breathing Disorders:	10		
Diffuse Parenchymal Lung Diseases	10		
Alveolar Diseases			
High-altitude physiology and clinical disorders & Diving injury and air embolism.	10		
	10		
Module4			
1. Non-muscular diseases of the chest wall.	10		
2. Effect of neuromuscular diseases on ventilation.	10		
Management of neuromuscular respiratory muscle dysfunction.	10		
Pleural effusions.	10		
Pneumothorax.	10		
Pleural tumors.	5		
Pulmonary-Systemic Interactions	15		
Disorders Of The Mediastium:	10		

Subjects	Lectures	Practical	Total Teaching Hours
Total teaching hours	**360**		

Subjects	Lectures	Practical	Total Teaching Hours
Module1			
Clinical part:		**30**	
1. History taken		**30**	
2. General examination			
Module2			
		30	
Clinical part:			
1. Local examination		**30**	
2. Radiological evaluation			
Module3			
Clinical part:		60	
1. Pulmonary function tests report interpretation		60	
2. ABG interpretation		30	
3. Sleep :		30	
Sleep sheet		30	
sleep staging polysomnography interpretation NIPPV adjustment(CPAP,BIPAP)		30	
Module4			
Clinical part:			
FOB:		30	
Preparation introduction			
Navigation interpretation		30	
Intervention(cryotherapy,electrocautery,argon plasma,biopsy taken and chemical injections)		30	

Subjects	Lectures	Practical	Total Teaching Hours
Special probe			
Total teaching hours		**450**	

(4) Teaching methods:

4.1: **lectures, seminars, workshops**

4.2: **clinical sessions and work experience**

4.3: **Problem solving, case studies**

4.4: **directed and self directed learning activities**

(5) Assessment methods:

5.1 **Written** for assessment of Knowledge and intellectual ILOs

5.2: **By clinical examination** . Knowledge and intellectual transferable and professional ILOs

5.3: **logbook assessment and on supervisor reports** for assessment of:

– lecture attendence.

- practical and transferable skills.

- different scientific activities as attendence of workshop, conferences, seminarss and theisis discussions attendence.

5.4: MCQ continous assessment for assessment of Knowledge and intellectual ILOs

5.5 Oral exam for assessment Knowledge and intellectual transferable and professional ILOs

Mark of each Assessment :

Structured Oral 100

Practical: 100 MArks

MCQ 60

Written exam: 180+ Commentary: 60

OSCE Clinical: 100

Total: 600

References of the course:

- 6.1: Hand books: **Oxford handbook of respiratory medicine**
- 6.2: Text books
  - **Fishman's Pulmonary Diseases and Disorders**
  - **Crofton and Douglas's Respiratory Disease**
  - **Eagan's fundamentals of respiratory care**
  - **Respiratory diseases**
  - **Text book of pulmonary medicine**

- 6.3: Journals: **Periodicals of American Journal of Chest Diseases**
  Periodicals of European Respiratory Journal
  Periodicals of Chest Medicine
- 6.4: Websites: **Update guidelines of Asthma, COPD, Lung Cancer, Pulmonary Infections**
  www.GINA.com, www.GOLD.com,

(6) Facilities and resources mandatory for course completion:

Teaching rooms: Patients wards, Pulmonary function tests, Arterial Blood Gases, Respiratory Critical Care wards, Sleep Medicine Laboratory, Allergy Immunology Laboratory, Bronchoscopy wards.

Course coordinator:

Head of the department:

Prof. Mohamad khairy

Date: