Course content:

I. FIRST PART:

a. Appendix of pulmonary Physiology (Credit hours: 6 hours)

Will be taken in Physiology department by the staff members of Physiology with cooperation of Chest department

1. Non Respiratory function of the lung
2. Physiology of ventilation
   - Mechanic of respiration
   - Driving forces
   - Opposing forces
   - Distribution and efficacy of ventilation
   - Work of breathing
3. Diffusion
4. Lung volumes and capacity
5. Pattern of respiration
6. Gas transport
   - Oxygen transport
   - Carbon dioxide transport
7. Pulmonary circulation
8. Control of respiration
9. Pulmonary function tests
10. Acid- Base balance and blood gases
11. Shock
12. Capillary circulation and edema
13. Sleep physiology

b. Appendix of Pulmonary Pathology (Credit hours: 6 hours):

Will be taken in Pathology department by the staff members of Pathology with cooperation of Chest department

1. Inflammation
2. Ischemia , embolism, thrombosis
3. Infection
    - bacterial , fungal, viral , protozoal
    - Suppurative lung diseases
    - Typical and atypical mycobacterial

4. Granulomatous lung diseases
5. Airway disease
    - Bronchiolar diseases
    - Bronchial asthma
    - Chronic obstructive airway disease

6. Interstitial diseases
7. Depositional diseases
8. Lung neoplasm
    - Benign tumors of the lung
    - Bronchogenic carcinoma
    - Pleural tumors

II. SECOND PART:

Curriculum of Respiratory Medicine:

I. Lectures: (4 credit hours/ 4 hours weekly for 15 weeks= 60 hours in each semester) for 6 semesters→ **360 hours**

(4 hours weekly)

Lectures will be demonstrated in chest department in seminar hall, by staff of chest medicine members.

code	Topic	Number of hours	
		Lecture	Tutorial
CHEST 9003	**Architecture for Normal Lung Function :** • Functional Design of the Human Lung for Gas Exchange • The Respiratory Muscles • The Genetic, Molecular, and Cellular Basis of Lung Development • Development and Growth of the Lung • Cellular and Molecular Mechanisms Regulating Airway Smooth Muscle Physiology and Pharmacology • Pulmonary Surfactant System and Alveolar Homeostasis • Transport Function of Airway Epithelia and Submucosal Glands	4 hours weekly for 2 weeks	
	Physiological Principles of Normal Lung Function : • Pulmonary Mechanics • Control of Ventilation • Ventilation, Pulmonary Blood Flow, and Ventilation-Perfusion Relationships • Diffusion, Chemical Reactions, and Diffusing Capacity • Blood-Gas Transport • Acid-Base Balance	4 hours weekly for 3weeks	
	The Lungs in Different Physiological States : • Exercise, Integration, and Adaptation • Breathing in Exercise • The Lungs in Pregnancy • Aging of the Respiratory System	4 hours weekly for 2weeks	
	Lung Immunology : • Pulmonary Defense Mechanisms against Infections • Lymphocyte- and Macrophage-Mediated Inflammation in the Lung , • Mast Cells and Eosinophils • Antibody-Mediated Lung Defenses and	4 hours weekly for 2weeks	

code	Topic	Number of hours	
		Lecture	Tutorial
	Humoral Immunodeficiency		
	Chest Imaging: • Principles of chest X-ray , Sonar, CT , CT angiogram, Multislices CT and MRI •	4 hours Weekly for 3weeks	
	Chest intervention: • Chest physiotherapy ,Central venous line, Swan- Ganz Catheter, Bronchoscope and, Chest intercostals tube, pleural biopsy, Thoracoscope	4 hours Weekly for 3weeks	
CHEST 9004	**Chronic Obstructive Pulmonary Disease:** • Pathologic Features of Chronic Obstructive Pulmonary Disease: Diagnostic Criteria and • Differential Diagnosis • Chronic Obstructive Pulmonary Disease: Epidemiology, Pathophysiology, and Pathogenesis • Chronic Obstructive Pulmonary Disease: Clinical Course and Management • Cigarette Smoking and Disease • Rehabilitation in Chronic Obstructive Pulmonary Disease and Other Respiratory Disorders	4 hours Weekly For 4 weeks	
	Asthma: • The Biology of Asthma . • Asthma: Epidemiology • Aspirin- and Exercise-Induced Asthma • Asthma: Clinical Presentation and Management • Allergic Bronchopulmonary Aspergillosis (Mycosis)	4 hours For 4 weeks	
	Other Obstructive Disorders : • Upper Airway Obstruction in Adults • Cystic Fibrosis • Bronchiolitis • Bullous Disease of the Lung.	4 hours weekly For 3 weeks	

code	Topic	Number of hours	
		Lecture	Tutorial
	DISORDERS OF THE PULMONARY CIRCULATION: • The Pulmonary Circulation . • Pulmonary Hypertension and Cor Pulmonale. • Pulmonary Thromboembolic Disease. • Pulmonary Vasculitis . • Pulmonary Arteriovenous Malformations.	4 hours Weekly For 4 weeks	
CHEST 9005	**DISORDERS OF THE PLEURAL SPACE :** 1. Non-Malignant Pleural Effusions 2. Malignant Pleural Effusions 3. Pneumothorax 4. Malignant Mesothelioma and Other Primary Pleural Tumors	4 hours weekly for 3 weeks	
	DISEASES OF THE MEDIASTINUM: • Nonneoplastic Disorders of the Mediastinum • Congenital Cysts of the Mediastinum: Bronchopulmonary Foregut Anomalies • Acquired Lesions of the Mediastinum: Benign and Malignant	4 hours weekly for 4 weeks	
	DISORDERS OF THE CHESTWALL, DIAPHRAGM, AND SPINE: • Nonmuscular Diseases of the Chest Wall • Effects of Neuromuscular Diseases on Ventilation • Management of Neuromuscular Respiratory Muscle Dysfunction	4 hours Weekly For 4 weeks	
	Cancer of the Lungs: • Genetic and Molecular Changes of Human Lung Cancer • The Solitary Pulmonary Nodule: A Systematic Approach • The Pathology of Non–Small Cell Lung Carcinoma • Part I: Treatment of Non–Small-Cell Lung Cancer: Surgical • Part II: Treatment of Non-Small-Cell Lung	4 hours weekly for 4 weeks	

code	Topic	Number of hours	
		Lecture	Tutorial
	• Cancer: Chemotherapy. • Part III: Treatment of Non–Small-Cell Lung Cancer: Radiation Therapy. • Small Cell Lung Cancer: Diagnosis, Treatment, and Natural History . • Primary Lung Tumors Other Than Bronchogenic Carcinoma: Benign and Malignanti • Extrapulmonary Syndromes Associated with Lung Tumors • Pulmonary Metastases		
CHEST 9006	**INFECTIOUS DISEASES OF THE LUNGS : General Concepts:** • Pulmonary Clearance of Infectious Agents • Approach to the Patient with Pulmonary Infection • The Radiology of Pulmonary Infection • The Pathology of Pulmonary Infection • Principles of Antibiotic Use and the Selection of Empiric Therapy for Pneumonia • Vaccination against Pulmonary Infections • Microbial Virulence Factors in Pulmonary Infections	4 hours weekly for 3 weeks	
	Major Pathogens in Pulmonary Infections : • Bacterial pneumonia Community acquired pneumonia,Caused by Gram-Positive Bacteria,Nosocomial Pneumonia , Health care associated pneumonia, ventilator associated pneumonia.	4 hours weekly for 2 weeks	
	• Fungal infection Aspergillus, Candida, and Other Opportunistic Mold Infections of the Lung, Cryptococcosis and the Endemic Mycos • Viral Infections of the Lung and Respiratory Tract • Protozoan Infections of the Thorax Helminthic Diseases of the Lungs, Zoonotic and	4 hours weekly for 4 weeks	

code	Topic	Number of hours	
		Lecture	Tutorial
	Other unusual Bacterial pneumonias		
	Mycobacterial Infections • The Epidemiology, Prevention, and Control of Tuberculosis • The Microbiology, Virulence, and Immunology of Mycobacteria • Clinical Presentation and Treatment of Tuberculosis • Mycobacterial Infections and HIV Infection • Diseases due to Non-Tuberculous Mycobacter	4 hours weekly for 4 weeks	
	Pulmonary Infections in Special Hosts • Pneumonia in Surgery and Trauma • Pulmonary Infection in Immunocompromised Hosts • Human Immunodeficiency Virus and Pulmonary Infections	4 hours weekly for 2 weeks	
CHEST 9007	**Occupational Disorders** • Occupational Lung Disorders: General Principles and Approaches, • Asbestos-Related Lung Disease, • Chronic Beryllium Disease ,Hard-Metal Lung Diseases, Coal Workers' Lung Diseases and Silicosis • Occupational Asthma, Byssinosis, and Industrial Bronchitis ,Acute and Chronic Responses to Toxic Inhalations	4 hours weekly for 2 weeks	
	Environmental Disorders • Indoor and Outdoor Air Pollution.,High-Altitude Physiology and ClinicalDisorders ,Diving Injuries and Air Embolism, Thermal Lung Injury and Acute Smoke Inhalation .	4 hours weekly for 2 weeks	

code	Topic	Number of hours	
		Lecture	Tutorial
	Immunologic and Interstitial Diseases • Interstitial Lung Disease: A Clinical Overview and General Approach , • Systemic Sarcoidosis , • Idiopathic Pulmonary Fibrosis , • Hypersensitivity Pneumonitis, • Radiation Pneumonitis, • Pulmonary Manifestations of the Collagen Vascular Diseases , • The Eosinophilic Pneumonias	4 hours weekly for 3weeks	
	DRUG-INDUCED LUNG DISEASES • Pulmonary Toxicity Associated with Chemotherapeutic Agents • Drug-Induced Lung Disease Due to Nonchemotherapeutic Agents	4 hours weekly for 2 weeks	
	ALVEOLAR DISEASES • Alveolar Hemorrhage Syndromes . • Mechanisms of Aspiration Disorders . • Pulmonary Alveolar Proteinosis .	4 hours weekly for 2 weeks	
	Lymphoproliferative Disorders • Lymphoproliferative and Hematologic Diseases Involving the Lung and Pleura	4 hours weekly for 2 weeks	
	Depositional and Infiltrative Disorders • Depositional Diseases of the Lungs • Pulmonary Langerhan's-Cell Histiocytosis • Pulmonary Lymphangioleiomyomatosis • The Lungs in Patients with Inborn Errors of Metabolism	4hours weekly for 2 weeks	
CHEST 9008	**ACUTE RESPIRATORY FAILURE :** Lung Failure • Respiratory Failure: An Overview • Acute Respiratory Distress Syndrome: Pathogenesis • Acute Lung Injury and the Acute Respiratory Distress Syndrome: Clinical Features,Management, and Outcomes	4 hours weekly for 3 weeks	

code	Topic	Number of hours	
		Lecture	Tutorial
	• Sepsis, Systemic Inflammatory Response Syndrome, and Multiple Organ Dysfunction Syndrome . • Acute Respiratory Failure in the Surgical Patient		
	Respiratory Pump Failure • Pump Failure: The Pathogenesis of Hypercapnic • Respiratory Failure in Patients with Lung and Chest Wall Disease .	4 hours weekly for 1 week	
	Management and Therapeutic Interventions • Oxygen Therapy and Pulmonary Oxygen Toxicity • Pulmonary Pharmacotherapy • Intubation and Upper Airway Management • Hemodynamic and Respiratory Monitoring in Acute Respiratory Failure • Principles of Mechanical Ventilation • Nutrition in Acute Respiratory Failure • Treatment of Agitation in the Intensive Care Unit • Decision Making in the Intensive Care Unit • Ethics in the Intensive Care Unit.	4 hours Weekly for 4 weeks	
	SURGICAL ASPECTS OF PULMONARY MEDICINE • Perioperative Care of the Patient Undergoing Lung Resection • Thoracic Trauma • Lung Transplantation	4 hours weekly for 2 weeks	
	SLEEP AND SLEEP DISORDERS • The Stages of Sleep • Changes in the Cardiorespiratory System During Sleep • Sleep Apnea Syndromes • Differential Diagnosis and Evaluation of Sleepiness	4 hours weekly for 3 weeks	
	Lung in relation to other systems • The relation between lung and Brain, GIT, Kidney, Heart, Skin……etc	4 hours weekly for 2 weeks	

II. Clinical Training course for MD Candidates in Chest Diseases

Clinical training curriculum + practical skills (2 credit hours/ 4 hours weekly for 15 weeks = 60 hours) for 6 semesters→ 360 hours including:

- Clinical data attendance +bedside teaching (1 hour / a week)
- patients clinical staff round (1 hour / a week)
- practical skills (2 hours / a week)

Clinical Skills including: (1 credit hour/ 2 hours weekly)→ 30 hours in one semester
• To discuss history taking and chest symptoms including: Cough Expectoration, Dyspnea, Chest pain, Wheezes, Haemoptysis) • Also general symptoms including: (Fever, Anorexia, Loss of weight, Cashexia, Edema of lower limb, Other organ special symptoms related to chest condition of systemic diseases like neurological, cardiac, abdominal ,renal , other pelvic organ, skin and mucus membrane). • Also to discuss and perform general examination and local chest examination and fulfill all its items.
Procedure practice including:
• Bronchoscope • Thoracoscope • Pleural biopsy • Chest tube • Intensive Care attendance to perform , take decision in mechanical ventilation whether invasive or non invasive • Sleep study attendance and interpretation of data
Practical activity including: (1 credit hour/ 2 hours weekly) →30 hours in one semester
Practical activity including: • Radiology interpretation : normal chest x ray, CT, HRCT, Spiral CT, MRI, pulmonary angiogram) • Pulmonary function interpretation : spirometry , lung volumes, diffusion capacity • Arterial blood gases interpretation

Practical Skills (2 hours / week) for 15 weeks→ 30hours in one semester for 6 semester → 180 hours including the following:

Procedure	Indicative number	Level of participation	Numbers of hours
Radiology: • Chest X ray • CT chest • MRI	 200 90 25	 Interpret & Perform	 10 hours 10 hours 5 hours
Pulmonary function Tests: • Spirometry • Lung volume • Diffusion	500	Interpret & Perform	25 hours
Arterial blood gases	300	Interpret & perform	10 hours
Bronchoscope: BAL	100 50 25	Perform Attend Assist	10 hours
Brush	100 50 25	Perform Attend Assist	10 hours
Bronchial Biopsy	100 50 25	Perform Attend Assist	10 hours
Trans-Bronchial Aspiration Biopsy	100 50 25	Perform Attend Assist	10 hours
Sleep study	100	Perform & Interpret	20 hours
Non invasive ventilation	50 25 10	Perform Attend Assist	10 hours
Invasive ventilation	50 25 10	Perform Attend Assist	15 hours
Intercostal tube	25 25 10	Perform Attend Assist	10 hours
Pleural biopsy	25 10 5	Perform Attend Assist	10 hours
Thoracoscope	30 10 5	Perform Attend Assist	15 hours

Quality Assurance Unit

Tanta University
Faculty of Medicine

Department of Chest

Course Specifications

Doctorate Degree in chest diseases (CHEST 9003)

- Architecture of normal lung
- Physiology of lung principles in normal and different situations
- Chest imaging
- Chest interventions

2015-2016

Chest Doctorate Degree, Course Specifications

University: Tanta Faculty: Medicine Department: Chest

A- Administrative Information

1. **Course title: of Chest Medicine and respiratory critical care for chest doctorate degree**
2. **Department offering the program: Chest departments.**
3. **Department responsible for the course: Chest department.**
4. **Course code: CHEST 9003**
5. **Level: Second part.**
6. **No. of Credit / taught hours: 7/150 (for 15 weeks)**
   - **Lectures + Tutorial: 4 credit hours→ 60 hours**
   - **Clinical + Practical: 3 credit hours → 90 hours**
7. **Course coordinator: Prof. Hoda Mokhtar Bahr (Prof. of chest diseases, Tanta University)**
8. **Internal reviewer: Prof. Wafaa Saleh El-Shimy (Prof. of chest diseases, Tanta University)**
9. **External reviewer: Prof. El-Sayed Salem (Prof. of chest diseases, El-Kaser El-Ainy University)**
10. **Authorization date of course specification: 2 / 2 / 2016 .**

B- Professional Information

1 – Overall Course aims

Our course aims to:

• Develop a high level of knowledge and understanding of architecture of normal lung
•Develop a high level of knowledge and understanding of Physiology of lung principles in normal and different situations
• Interpret data obtained from chest imaging.
• Use bronchoscope and thoracoscope in diagnosis and management of d chest diseases.
• Develop effective communication skills
• Develop teaching skills
• Develop good critical appraisal skills
• Develop research skills
• Develop appropriate attitudes in a multicultural society
• Develop problem-solving skills.
• Provide a unique experience of how medicine is practiced in specialized chest institute.
• Provide an experience which is intellectually stimulating, enjoyable, and meets students' needs
• Provide an internationally accepted postgraduate qualification
• Stimulate lifelong learning

2 – Intended learning outcomes (ILOs):

a-knowledge and understanding:

By the end of the course, student should be able to:

a1 – Mention the anatomical, physiological, genetics, immunological basis of the respiratory tract in health , special situation and diseases.

a2 – Mention topics closely related to respiratory medicine e.g. chest radiology, microbiology, allergy, immunology, chest physiotherapy.

a3 – Identify the effect of the anatomical, physiological, genetics, immunological abnormalities and its relation to chest diseases

a4 – Describe the importance of a multidisciplinary approach

a.5- Provide an experience which is intellectually stimulating, enjoyable, and meets students' need

a.6 Recognize rights of patients to play a part in the decision-making process of their own management

b-intellectual skills

By the end of the course, student should be able to:

b1**-** Plan investigations appropriately and according to the resources**.**

b2 -Interpret lung function tests, including arterial blood gases, CT chest, HRCT, MRI.

b3 - Identify and solve problems of chest diseases.

b4-Argue and discuss medical issue on evidence based manner.

c-Professional &practical skills

By the end of the course, student should be able to:

c1- Perform a pleural tap and biopsy, intercostal chest drain, and bronchoscopy thoracoscopy (not with a patient)

c2- Demonstrate the use of inhalers, a nebulizer and oxygen equipment .

c3- Perform and demonstrate complete pulmonary function, arterial blood gases.

c4- Write and evaluate a professional medical report related to chest diseases, reflecting case diagnosis and management plane , and respecting medico legal aspects. c.5-

Use recent technological tools as computer and internet, to serve his career through searches and assignments

d-General transferable skills

By the end of the course, student should be able to:

d1 - Present and give scientific presentations.

d2 -Communicate and interact effectively with student & other people and in a small group

d3 - Work as part of a team, recognizing the strengths, weaknesses, needs and sensitivities of others.

d.4- Adopt respect to all colleagues in his medical team

d.5-Apply ethical principles on treating the patients

3-Course contents

Total credit hours 7(4 hours lectures and 3 hours clinical)

- ✓ **The lecture part (4 credit hours) :** is 4 hours weekly for one semester (15 weeks)→ 60 hours
- ✓ **Clinical part (3 credit hours):** is 6 hours weekly (15 weeks)→ 90 hours in the form of:

- Clinical data attendance +bedside teaching (2 hour / a week)
- patients clinical staff round (2 hour / a week)
- practical skills (2 hours / a week)

Topics	No. of hours	
	Lecture And Tutorial	Clinical/ lab And Practical skills
I- **Architecture for Normal Lung Function**: • Functional Design of the Human Lung for Gas Exchange and The Respiratory Muscles, Development and Growth of the Lung and congenital anomalies. • The Genetic, Molecular, and Cellular Basis of Lung Development,Cellular and Molecular Mechanisms Regulating Airway Smooth Muscle Physiology and Pharmacology • Pulmonary Surfactant System	4 hours weekly for 2 weeks	6 hours weekly for 2 weeks

and Alveolar Homeostasis, Transport Function of Airway Epithelia and Submucosal Glands		
II- <u>Physiological Principles of lung function:</u> • Pulmonary Mechanics, Control of Ventilation ,Ventilation, Pulmonary Blood Flow, Ventilation-Perfusion Relationships Diffusion, Chemical Reactions, and Diffusing Capacity,Blood-Gas Transport,Acid-Base Balance	4 hours weekly for 3 weeks	6 hours weekly for 3 weeks
III- <u>The Lungs in Different Physiological States:</u> • Exercise, Integration, and Adaptation ,Breathing in Exercise The Lungs in Pregnancy ,Aging of the Respiratory System	4 hours weekly for 2 weeks	6 hours weekly for 2 weeks
IV- <u>Lung Immunology:</u> • Pulmonary Defense Mechanisms against Infections,Lung Injury and Repair,Cytokines and Chemokines in Lung Inflammation and Injury,Oxidative and Nitrosative Lung Injury	4 hours weekly for 2 weeks	6 hours weekly for 2 weeks
V- <u>Chest Imaging:</u> • Principles of chest X-ray , Sonar, CT , CT angiogram, Multislices CT and MRI	4 hours weekly for 3 weeks	6 hours weekly for3 weeks

VI- <u>Chest intervention:</u> • Chest physiotherapy ,Central venous line, Swan- Ganz Catheter, Bronchoscope and, Chest intercostals tube, pleural biopsy, Thoracoscope	4 hours weekly for 3weeks	6 hours weekly for 3 weeks

Detailed curriculum and log book is annexed

- Students should attend at least 75% of lectures, clinical practice, annual meeting, clinical rounds and tutorials.
- Student should perform clinical practice according to log book successfully before the examination
- Student should work as assistant lecture in the university hospital and shift according to hospital requirement for at least 2 years after registered as assistant lecture and enter the programme.
- They should be responsible for patient admission and follow up by investigations, treatment plan, discharge under supervision of his consultant.
- Student should be responsible for emergency on his department and dealing with it carefully & successfully by rapid and good decision under supervision of his consultant.
- Student should record all his activities and skills during the training course programmed on his log book signed by the consultant.

<u>Scientific activity:</u> 1 credit hour/ 4hours weekly in one semester→ (60 hours)

- It's in attending : seminars, research forum, journal clubs, dissertation defenses, conferences, workshops or training courses

4-Teaching and learning methods

Lectures, seminars, journal clubs, bed side teaching, case presentation, assignments, conference participation observation and hands on practice

5-Student Assessment

5.1…MCQs….to assess (a.1,a.2,a.3,a4,a5,a6,b.1,b.3)

5.2… log book… to assess (a4,a5,a6, b.2,b.3,b.4,c.1,c.2,c.3,c.4,c.5,d.1,d.2,d.3,d.4,d.5)

- Assessment schedule

بعد نهاية المقرر يقيم الطالب عن طريق اختبار اختيار من متعدد MCQs. يعقد الاختبار فى خلال الأسبوع الأخير من كل فصل دراسى ويرصد فى سجل الطالب(Transcript) جميع درجاته الحاصل عليها فى المقررات وتدخل جميعها فى حساب Cumulative Grade Point Average (CGPA) ولا يحسب للطالب مقرر حصل فيه على تقدير اقل من (C) ضمن الساعات المطلوبة للحصول على الدرجة طبقا للماد ة 24 من لائحة الدراسات العليا 2013-2014

6- Weighing of assessments

1. **MCQs exam: at the last week of each semester (the student's grade shouldn't be less than (C) to pass each semester**

2. **Log book: Students should attend at least 75% of lectures, clinical practice, annual meeting, clinical rounds and tutorials.**

7- List of references

7.1 Course notes

7.2 Text book

References (list them):

- Fishman's Pulmonary Diseases and Disorders
- Crofton and Douglas's Respiratory Disease
- Eagan's fundamentals of respiratory care
- Murray & Nadle
- Periodicals of American Journal of Chest Diseases
- Periodicals of European Respiratory Journal
- Periodicals of Chest Medicine
- Update guidelines of Asthma, COPD, Lung Cancer, Pulmonary Infections
- The ICU Paul L. Marino
- Pulmonary Clinical Secrets

7.4 Periodicals and web sites

8-Other resources/ facilities required for teaching and learning to achieve the above ILOs

The department has regular daily lists for pulmonary function test.
The department has ICU emergency Unit for treatment of respiratory failure patients.
A list for sleep study medicine
A list for bronchoscope is regulated weekly

A list for thoracoscope diagnostic and ablative therapy of pleural diseases is regulated weekly
Free Internet access for international data bases is available for all doctorate students through the faculty postgraduate library
The essential text books for this course are available either in department or faculty library

9-we certify that all of the information required to deliver this course is contained in the above specifications and will be implemented

We verify that the above Course and the analysis of students and external evaluator opinions are accurate.

Course coordinator
name……..signature……Date……

Head of department

name……..signature……Date……

Head of quality assurance unit:
name……..signature……Date……

Quality Assurance Unit

Tanta University
Faculty of Medicine

Department of Chest

Course Specifications

Doctorate Degree in chest diseases (CHEST 9004)

- Disease of the bronchus & Obstructive lung disorders
- Physiology of lung principles in normal and different situations
- Suppurative lung syndrome
- Disorders of pulmonary circulation

2015-2016

Chest Doctorate Degree, Course Specifications

University: Tanta Faculty: Medicine Department: Chest

A- Administrative Information

1. **Course title: of Chest Medicine and respiratory critical care for chest doctorate degree**
2. **Department offering the program: Chest departments.**
3. **Department responsible for the course: Chest department.**
4. **Course code: CHEST 9004**
5. **Level: Second part.**
6. **No. of Credit / taught hours: 7/150 (for 15 weeks)**
   - **Lectures + Tutorial: 4 credit hours→ 60 hours**
   - **Clinical + Practical: 3 credit hours → 90 hours**
7. **Course coordinator: Prof. Hoda Mokhtar Bahr (Prof. of chest diseases, Tanta University)**
8. **Internal reviewer: Prof. Wafaa Saleh El-Shimy (Prof. of chest diseases, Tanta University)**
9. **External reviewer: Prof. El-Sayed Salem (Prof. of chest diseases, El-Kaser El-Ainy University)**
10. **Authorization date of course specification: 2 / 2/ 2016 .**

B- Professional Information

1 – Overall Course aims

Our course aims to:

• Develop a high level of knowledge and understanding of obstructive airway diseases & disorders of pulmonary circulation
• Develop skills in the assessment of COPD, Suppurative syndrome pulmonary circulatory disorders patients
• Develop skills in managing patients with COPD, Suppurative syndrome pulmonary circulatory patients
• Highlight the importance of preventative medicine and community services
• Develop understanding of service provision
• Develop effective communication skills
• Develop teaching skills
• Develop good critical appraisal skills
• Develop research skills
• Develop appropriate attitudes in a multicultural society
• Develop problem-solving skills.
• Provide a unique experience of how medicine is practiced in specialized chest institute.

• Provide an experience which is intellectually stimulating, enjoyable, and meets students' needs
• Provide an internationally accepted postgraduate qualification
• Stimulate lifelong learning

2 – Intended learning outcomes (ILOs):

a-knowledge and understanding:
By the end of the course, student should be able to:
a1 - mention the etiology, epidemiology, pathology, pathophysiology, genetic, clinical feature diagnosis, management of chronic obstructive lung disease, bronchial asthma, other obstructive lung diseases and pulmonary circulation with vascular thromboembolic disease .
a2 – mention topics closely related to chronic obstructive lung disease, bronchial asthma, other obstructive lung diseases and pulmonary circulation with vascular thromboembolic disease .
chronic obstructive lung disease, bronchial asthma, other obstructive lung diseases and pulmonary circulation with vascular thromboembolic disease . e.g. chest radiology, microbiology, allergy, immunology, chest physiotherapy.
a3 – Identify the effect of environmental and occupational effect on chronic obstructive lung disease, bronchial asthma, other obstructive lung diseases and pulmonary circulation with vascular thromboembolic disease .
a4 – Describe the importance of a multidisciplinary approach
a.5- Provide an experience which is intellectually stimulating, enjoyable, and meets students' need a.6
Recognize rights of patients to play a part in the decision-making process of their own management

b-intellectual skills
By the end of the course, student should be able to:
b1**-** Plan investigations appropriately and according to the resources**.**
b2 -Interpret lung function tests, including arterial blood gases, CT chest, HRCT, MRI of chronic obstructive lung disease, bronchial asthma, other obstructive lung diseases and pulmonary circulation with vascular thromboembolic disease .
b3 - Identify and solve problems of in management of chronic obstructive lung disease, bronchial asthma, other obstructive lung diseases and pulmonary circulation with vascular thromboembolic disease .
b4-Argue and discuss medical issue on evidence based manner.

c-Professional &practical skills
By the end of the course, student should be able to:
c1- Demonstrate and perform how a pulmonary function, ABG, bronchial provocation, skin test, bronchoscopy , are performed for chronic obstructive lung disease, bronchial asthma, other obstructive lung diseases and pulmonary circulation with vascular thromboembolic disease .
c2- Demonstrate and perform the use of inhalers, a nebulizer and oxygen equipment .

c3- Write and evaluate a professional medical report related to chest diseases, reflecting case diagnosis and management plane , and respecting medico legal aspects.
c.4-Use recent technological tools as computer and internet, to serve his career through searches and assignments

d-General transferable skills
By the end of the course, student should be able to:
d1 - Present and give scientific presentations.
d2 -Communicate and interact effectively with student & other people and in a small group
d3 - Work as part of a team, recognizing the strengths, weaknesses, needs and sensitivities of others.
d.4- Adopt respect to all colleagues in his medical team
d.5-Apply ethical principles on treating the patients

3-Course contents

Total credit hours 7 (4 hours lectures and 3 hours clinical)

- ✓ **The lecture part (4 credit hours) :** is 4 hours weekly for one semester (15 weeks)→ 60 hours
- ✓ **Clinical part (3 credit hours):** is 6hours weekly (15 weeks)→ 60 hours in the form of:

- Clinical data attendance +bedside teaching (2 hour / a week)
- patients clinical staff round (2 hour / a week)
- practical skills (2 hours / a week)

Topics	No. of hours	
	Lecture And Tutorial	Clinical/ lab And Practical skills
I. Chronic Obstructive Pulmonary Disease: • Pathologic Features of Chronic Obstructive Pulmonary Disease: Diagnostic Criteria and • Differential Diagnosis • Chronic Obstructive Pulmonary Disease: Epidemiology,	4 hours weekly for 4 weeks	6 hours weekly for 4 weeks

Pathophysiology, and Pathogenesis • Chronic Obstructive Pulmonary Disease: Clinical Course and Management • Cigarette Smoking and Disease Rehabilitation in Chronic Obstructive Pulmonary Disease and Other Respiratory Disorders **II. Asthma:** • The Biology of Asthma . • Asthma: Epidemiology • Aspirin- and Exercise-Induced Asthma • Asthma: Clinical Presentation and Management Allergic Bronchopulmonary Aspergillosis (Mycosis)	4 hours weekly for 4 weeks	6 hours weekly for 4 weeks
III. Other Obstructive Disorders : • Upper Airway Obstruction in Adults • Cystic Fibrosis • Bronchiolitis • Bullous Disease of the Lung.	4 hours weekly for 3 weeks	6 hours weekly for 3 weeks
IV. DISORDERS OF THE PULMONARY CIRCULATION: • The Pulmonary Circulation . • Pulmonary Hypertension and Cor Pulmonale. • Pulmonary Thromboembolic Disease. • Pulmonary Vasculitis . • Pulmonary Arteriovenous Malformations.	4 hours weekly for 4 weeks	6 hours weekly for 4 weeks

Detailed curriculum and log book is annexed

- Students should attend at least 75% of lectures, clinical practice, annual meeting, clinical rounds and tutorials.
- Student should perform clinical practice according to log book successfully before the examination
- Student should work as assistant lecture in the university hospital and shift according to hospital requirement for at least 2 years after registered as assistant lecture and enter the programme.
- They should be responsible for patient admission and follow up by investigations, treatment plan, discharge under supervision of his consultant.
- Student should be responsible for emergency on his department and dealing with it carefully & successfully by rapid and good decision under supervision of his consultant.
- Student should record all his activities and skills during the training course programmed on his log book signed by the consultant.

Scientific activity: 1 credit hour/ 4hours weekly in one semester→ (60 hours)

- It's in attending : seminars, research forum, journal clubs, dissertation defenses, conferences, workshops or training courses

4-Teaching and learning methods

Lectures, seminars, journal clubs, bed side teaching, case presentation, assignments, conference participation observation and hands on practice

5-Student Assessment

5.1…MCQs….to assess (a.1,a.2,a.3,a4,a5,a6,b.1,b.3)
5.2… log book… to assess (a4,a5,a6, b.2,b.3,b.4,c.1,c.2,c.3,c.4,c.5,d.1,d.2,d.3,d.4,d.5)

- Assessment schedule

بعد نهاية المقرر يقيم الطالب عن طريق اختبار اختيار من متعدد MCQs. يعقد الاختبار فى خلال الأسبوع الأخير من كل فصل دراسى ويرصد فى سجل الطالب(Transcript) جميع درجاته الحاصل عليها فى المقررات وتدخل جميعها فى حساب Cumulative Grade Point Average (CGPA) ولا يحسب للطالب مقرر حصل فيه على تقدير اقل من (C) ضمن الساعات المطلوبة للحصول على الدرجة طبقا للماد ة 24 من لائحة الدراسات العليا 2013-2014

6- Weighing of assessments

1. **MCQs exam: at the last week of each semester (the student's grade shouldn't be less than (C) to pass each semester**

2. **Log book: Students should attend at least 75% of lectures, clinical practice, annual meeting, clinical rounds and tutorials.**

7- List of references

7.1 Course notes

7.2 Text book

References (list them):

- Fishman's Pulmonary Diseases and Disorders
- Crofton and Douglas's Respiratory Disease
- Eagan's fundamentals of respiratory care
- Murray & Nadle
- Periodicals of American Journal of Chest Diseases
- Periodicals of European Respiratory Journal
- Periodicals of Chest Medicine
- Update guidelines of Asthma, COPD, Lung Cancer, Pulmonary Infections
- The ICU Paul L. Marino
- Pulmonary Clinical Secrets

7.4 Periodicals and web sites

8-Other resources/ facilities required for teaching and learning to achieve the above ILOs

The department has regular daily lists for pulmonary function test.
The department has ICU emergency Unit for treatment of respiratory failure patients.
A list for sleep study medicine
A list for bronchoscope is regulated weekly
A list for thoracoscope diagnostic and ablative therapy of pleural diseases is regulated weekly

Free Internet access for international data bases is available for all doctorate students through the faculty postgraduate library
The essential text books for this course are available either in department or faculty library

9-we certify that all of the information required to deliver this course is contained in the above specifications and will be implemented

We verify that the above Course and the analysis of students and external evaluator opinions are accurate.

Course coordinator
name……..signature……Date……

Head of department

name……..signature……Date……

Head of quality assurance unit:
name……..signature……Date……

Quality Assurance Unit

Tanta University
Faculty of Medicine

Department of Chest

Course Specifications

Doctorate Degree in chest diseases
Pathology
(CHEST 9002)

2016-2017

Chest Doctorate Degree, Course Specifications

University: Tanta Faculty: Medicine Department: Chest

A- Administrative Information

1. **Course title: of Chest Medicine and respiratory critical care for chest doctorate degree**
2. **Department offering the program: Chest departments.**
3. **Department responsible for the course: Chest department.**
4. **Course code: CHEST 9002**
5. **Level: first part.**
6. **No. of Credit / taught hours: 7/150 (for 15 weeks)**
   - **Lectures + Tutorial: 7 credit hours→ 105 hours**
7. **Course coordinator: Prof. Hoda Mokhtar Bahr (Prof. of chest diseases, Tanta University)**
8. **Internal reviewer: Prof. Wafaa Saleh El-Shimy (Prof. of chest diseases, Tanta University)**
9. **External reviewer: Prof. Ramadan Nafee (Prof. of chest diseases, Zagzig University)**
10. **Authorization date of course specification: / / 2017 .**

B- Professional Information

1 – Overall Course aims

Our course aims to:

•Develop a high level of knowledge and understanding of general Pathological process such as inflammation, ischemia, infection and malignancy.
•Develop a high level of knowledge and understanding of Pathological process of different chest diseases.
•Develop a high level of knowledge and understanding of normal immunology of lung .
•Develop a high level of knowledge and understanding of immunology of lung in different chest diseases.
•Develop a high level of knowledge and understanding of pathology and etiology of lung and pleural neoplasm and how to classify and stage.
• Develop effective communication skills
• Develop teaching skills
• Develop good critical appraisal skills
• Develop research skills
• Develop appropriate attitudes in a multicultural society
• Develop problem-solving skills.
• Provide a unique experience of how medicine is practiced in specialized chest institute.
•Provide an experience which is intellectually stimulating, enjoyable, and meets students' needs
• Provide an internationally accepted postgraduate qualification
• Stimulate lifelong learning

2 – Intended learning outcomes (ILOs):

a-knowledge and understanding:

By the end of the course, student should be able to:

a1 – Mention the histological feature of the respiratory tract in health .

a2 – Mention the pathological and immunological basis of the respiratory tract in special situation and diseases.

A3–Mention topics closely related to respiratory medicine e.g. allergy and immunology.

a3 – Identify the effect of the anatomical, physiological, genetics, immunological abnormalities and its relation to pathological process and histopathology of chest diseases

a4 – Describe the importance of a multidisciplinary approach

a.5- Provide an experience which is intellectually stimulating, enjoyable, and meets students' need

a.6 - Recognize rights of patients to play a part in the decision-making process of their own management

b-intellectual skills

By the end of the course, student should be able to:

b1 **-** Plan investigations appropriately and according to the resources**.**

b2 – Interpret lung cancer staging according to data obtained by bronchoscopic ,thoracoscopic and ultrasonic examination of lung and pleura.

b3 - Identify and solve problems of chest diseases.

b4 - Argue and discuss medical issue on evidence based manner.

c-Professional &practical skills

By the end of the course, student should be able to:

c1- Perform a bronchoscopic biopsies, thoracoscopic pleural and lung biopsies.

c4- Write and evaluate a professional medical report related to pathology chest diseases, reflecting case diagnosis and management plane , and respecting medico legal aspects.

c.5-Use recent technological tools as computer and internet, to serve his career through searches and assignments

d-General transferable skills

By the end of the course, student should be able to:

d1 - Present and give scientific presentations.

d2 -Communicate and interact effectively with student & other people and in a small group

d.3-Work as part of a team, recognizing the strengths, weaknesses, needs and sensitivities of others.
d.4- Adopt respect to all colleagues in his medical team
d.5-Apply ethical principles on treating the patients

3-Course contents

Total credit hours 7(7 hours lectures)

- ✓ **The lecture (7credit hours) :** is 7 hours weekly for one semester (15 weeks)→ 105 hours

Topics	No. of hours Lecture And Tutorial
<u>Applied Pathology of different chest disease</u> ✓ **General pathology** • Inflammation • Ischemia , embolism, thrombosis • Infection • Immunity and hypersensitivity • Pathology of benign and malignant tumors	7 hours weekly for 5 weeks

✓ **Pathology of respiratory system** • Granulomatous lung diseases • Airway disease • Interstitial diseases • Depositional diseases • Lung neoplasm • Lung injury & repair • Pleural diseases • pulmonary hypertension and corpulmonale	7 hours weekly for 10 weeks

Detailed curriculum and log book is annexed

- Students should attend at least 75% of lectures, annual meeting, clinical rounds and tutorials.
- Student should work as assistant lecture in the university hospital and shift according to hospital requirement for at least 2 years after registered as assistant lecture and enter the programme.
- They should be responsible for patient admission and follow up by investigations, treatment plan, discharge under supervision of his consultant.
- Student should be responsible for emergency on his department and dealing with it carefully & successfully by rapid and good decision under supervision of his consultant.
- Student should record all his activities and skills during the training course programmed on his log book signed by the consultant.

4-Teaching and learning methods

Lectures, seminars, journal clubs, bed side teaching, case presentation, assignments, conference participation .

5-Student Assessment

5.1…Written and oral exam….to assess (a.1,a.2,a.3,a4,a5,a6,b.1,b.3)
5.2… log book… to assess (a4,a5,a6, b.2,b.3,b.4,c.1,c.2,c.3,c.4,c.5,d.1,d.2,d.3,d.4,d.5)

- Assessment schedule

بعد نهاية المقرر يقيم الطالب عن طريق اختبار تحريري وشفوي . يعقد الاختبار فى خلال الأسبوع الأخير من كل فصل دراسى ويرصد فى سجل الطالب(Transcript) جميع درجاته الحاصل عليها فى المقررات وتدخل جميعها فى حساب Cumulative Grade Point Average (CGPA) ولا يحسب للطالب مقرر حصل فيه على تقدير اقل من (C) ضمن الساعات المطلوبة للحصول على الدرجة طبقا للمادة 24 من لائحة الدراسات العليا 2013-2014

6- Weighing of assessments

1. **Written exam (90 mark) and oral exam (60)with total (150)mark: at the last week of each semester , the student's grade shouldn't be less than (C) to pass each semester**

2. **Log book: Students should attend at least 75% of lectures, clinical practice, annual meeting, clinical rounds and tutorials.**

7- List of references

7.1 Course notes

7.2 Text book

References (list them):

- Fishman's Pulmonary Diseases and Disorders
- Crofton and Douglas's Respiratory Disease
- Eagan's fundamentals of respiratory care
- Murray & Nadle
- Periodicals of American Journal of Chest Diseases
- Periodicals of European Respiratory Journal
- Periodicals of Chest Medicine
- Update guidelines of Asthma, COPD, Lung Cancer, Pulmonary Infections
- The ICU Paul L. Marino
- Pulmonary Clinical Secrets

7.4 Periodicals and web sites

8-Other resources/ facilities required for teaching and learning to achieve the above ILOs

The department has regular daily lists for pulmonary function test.
The department has ICU emergency Unit for treatment of respiratory failure patients.
A list for sleep study medicine
A list for bronchoscope is regulated weekly
A list for thoracoscope diagnostic and ablative therapy of pleural diseases is regulated weekly
Free Internet access for international data bases is available for all doctorate students through the faculty postgraduate library
The essential text books for this course are available either in department or faculty library

9-we certify that all of the information required to deliver this course is contained in the above specifications and will be implemented

We verify that the above Course and the analysis of students and external evaluator opinions are accurate.

Course coordinator
name……..signature……Date……

Head of department

name……..signature……Date……

Head of quality assurance unit:
name……..signature……Date……

Quality Assurance Unit

Tanta University
Faculty of Medicine

Department of Chest

Course Specifications

Doctorate Degree in chest diseases
Pathology
(CHEST 9002)

2016-2017

Chest Doctorate Degree, Course Specifications

University: Tanta Faculty: Medicine Department: Chest

A- Administrative Information

1. **Course title: of Chest Medicine and respiratory critical care for chest doctorate degree**
2. **Department offering the program: Chest departments.**
3. **Department responsible for the course: Chest department.**
4. **Course code: CHEST 9002**
5. **Level: first part.**
6. **No. of Credit / taught hours: 7/150 (for 15 weeks)**
   - **Lectures + Tutorial: 7 credit hours→ 105 hours**
7. **Course coordinator: Prof. Hoda Mokhtar Bahr (Prof. of chest diseases, Tanta University)**
8. **Internal reviewer: Prof. Wafaa Saleh El-Shimy (Prof. of chest diseases, Tanta University)**
9. **External reviewer: Prof. Ramadan Nafee (Prof. of chest diseases, Zagzig University)**
10. **Authorization date of course specification: / / 2017 .**

B- Professional Information

1 – Overall Course aims

Our course aims to:

•Develop a high level of knowledge and understanding of general Pathological process such as inflammation, ischemia, infection and malignancy.
•Develop a high level of knowledge and understanding of Pathological process of different chest diseases.
•Develop a high level of knowledge and understanding of normal immunology of lung .
•Develop a high level of knowledge and understanding of immunology of lung in different chest diseases.
•Develop a high level of knowledge and understanding of pathology and etiology of lung and pleural neoplasm and how to classify and stage.
• Develop effective communication skills
• Develop teaching skills
• Develop good critical appraisal skills
• Develop research skills
• Develop appropriate attitudes in a multicultural society
• Develop problem-solving skills.
• Provide a unique experience of how medicine is practiced in specialized chest institute.
•Provide an experience which is intellectually stimulating, enjoyable, and meets students' needs
• Provide an internationally accepted postgraduate qualification
• Stimulate lifelong learning

2 – Intended learning outcomes (ILOs):

a-knowledge and understanding:

By the end of the course, student should be able to:

a1 – Mention the histological feature of the respiratory tract in health .

a2 – Mention the pathological and immunological basis of the respiratory tract in special situation and diseases.

A3–Mention topics closely related to respiratory medicine e.g. allergy and immunology.

a3 – Identify the effect of the anatomical, physiological, genetics, immunological abnormalities and its relation to pathological process and histopathology of chest diseases

a4 – Describe the importance of a multidisciplinary approach

a.5- Provide an experience which is intellectually stimulating, enjoyable, and meets students' need

a.6 - Recognize rights of patients to play a part in the decision-making process of their own management

b-intellectual skills

By the end of the course, student should be able to:

b1 **-** Plan investigations appropriately and according to the resources**.**

b2 – Interpret lung cancer staging according to data obtained by bronchoscopic ,thoracoscopic and ultrasonic examination of lung and pleura.

b3 - Identify and solve problems of chest diseases.

b4 - Argue and discuss medical issue on evidence based manner.

c-Professional &practical skills

By the end of the course, student should be able to:

c1- Perform a bronchoscopic biopsies, thoracoscopic pleural and lung biopsies.

c4- Write and evaluate a professional medical report related to pathology chest diseases, reflecting case diagnosis and management plane , and respecting medico legal aspects.

c.5-Use recent technological tools as computer and internet, to serve his career through searches and assignments

d-General transferable skills

By the end of the course, student should be able to:

d1 - Present and give scientific presentations.

d2 -Communicate and interact effectively with student & other people and in a small group

d.3-Work as part of a team, recognizing the strengths, weaknesses, needs and sensitivities of others.
d.4- Adopt respect to all colleagues in his medical team
d.5-Apply ethical principles on treating the patients

3-Course contents

Total credit hours 7(7 hours lectures)

- ✓ **The lecture (7credit hours) :** is 7 hours weekly for one semester (15 weeks)→ 105 hours

Topics	No. of hours Lecture And Tutorial
<u>Applied Pathology of different chest disease</u> ✓ **General pathology** • Inflammation • Ischemia , embolism, thrombosis • Infection • Immunity and hypersensitivity • Pathology of benign and malignant tumors	7 hours weekly for 5 weeks

✓ **Pathology of respiratory system** • Granulomatous lung diseases • Airway disease • Interstitial diseases • Depositional diseases • Lung neoplasm • Lung injury & repair • Pleural diseases • pulmonary hypertension and corpulmonale	7 hours weekly for 10 weeks

Detailed curriculum and log book is annexed

- Students should attend at least 75% of lectures, annual meeting, clinical rounds and tutorials.
- Student should work as assistant lecture in the university hospital and shift according to hospital requirement for at least 2 years after registered as assistant lecture and enter the programme.
- They should be responsible for patient admission and follow up by investigations, treatment plan, discharge under supervision of his consultant.
- Student should be responsible for emergency on his department and dealing with it carefully & successfully by rapid and good decision under supervision of his consultant.
- Student should record all his activities and skills during the training course programmed on his log book signed by the consultant.

Elective courses: 1 credit hour/ 4hours weekly in one semester→ (60 hours)

Scientific activity: 1 credit hour/ 4hours weekly in one semester→ (60 hours)

- It's in attending : seminars, research forum, journal clubs, dissertation defenses, conferences, workshops or training courses

4-Teaching and learning methods

Lectures, seminars, journal clubs, bed side teaching, case presentation, assignments, conference participation .

5-Student Assessment

5.1…Written and oral exam….to assess (a.1,a.2,a.3,a4,a5,a6,b.1,b.3)

5.2… log book… to assess (a4,a5,a6, b.2,b.3,b.4,c.1,c.2,c.3,c.4,c.5,d.1,d.2,d.3,d.4,d.5)

- Assessment schedule

بعد نهاية المقرر يقيم الطالب عن طريق اختبار تحريري وشفوي . يعقد الاختبار فى خلال الأسبوع الأخير من كل فصل دراسى ويرصد فى سجل الطالب(Transcript) جميع درجاته الحاصل عليها فى المقررات وتدخل جميعها فى حساب Cumulative Grade Point Average (CGPA) ولا يحسب للطالب مقرر حصل فيه على تقدير اقل من (C) ضمن الساعات المطلوبة للحصول على الدرجة طبقا للماد ة 24 من لائحة الدراسات العليا 2013-2014

6- Weighing of assessments

1. **Written exam (90 mark) and oral exam (60)with total (150)mark: at the last week of each semester , the student's grade shouldn't be less than (C) to pass each semester**

2. **Log book: Students should attend at least 75% of lectures, clinical practice, annual meeting, clinical rounds and tutorials.**

7- List of references

7.1 Course notes

7.2 Text book

References (list them):

- Fishman's Pulmonary Diseases and Disorders
- Crofton and Douglas's Respiratory Disease
- Eagan's fundamentals of respiratory care

- Murray & Nadle
- Periodicals of American Journal of Chest Diseases
- Periodicals of European Respiratory Journal
- Periodicals of Chest Medicine
- Update guidelines of Asthma, COPD, Lung Cancer, Pulmonary Infections
- The ICU Paul L. Marino
- Pulmonary Clinical Secrets

7.4 Periodicals and web sites

8-Other resources/ facilities required for teaching and learning to achieve the above ILOs

The department has regular daily lists for pulmonary function test.
The department has ICU emergency Unit for treatment of respiratory failure patients.
A list for sleep study medicine
A list for bronchoscope is regulated weekly
A list for thoracoscope diagnostic and ablative therapy of pleural diseases is regulated weekly
Free Internet access for international data bases is available for all doctorate students through the faculty postgraduate library
The essential text books for this course are available either in department or faculty library

9-we certify that all of the information required to deliver this course is contained in the above specifications and will be implemented

We verify that the above Course and the analysis of students and external evaluator opinions are accurate.

Course coordinator
name……..signature……Date……

Head of department

name……..signature……Date……

Head of quality assurance unit:
name……..signature……Date……

Quality Assurance Unit

Tanta University
Faculty of Medicine

Department of Chest

Course Specifications

Doctorate Degree in chest diseases (CHEST 9005)

- Disease of the pleura
- Disease of the chest wall
- Disease of the mediastinum
- Disease of the diaphragm
- Tumors of the lung

2015-2016

Chest Doctorate Degree, Course Specifications

University: Tanta Faculty: Medicine Department: Chest

A- Administrative Information

1. **Course title: of Chest Medicine and respiratory critical care for chest doctorate degree**
2. **Department offering the program: Chest departments.**
3. **Department responsible for the course: Chest department.**
4. **Course code: CHEST 9005**
5. **Level: Second part.**
6. **No. of Credit / taught hours: 7/150 (for 15 weeks)**
   - **Lectures + Tutorial: 4 credit hours→ 60 hours**
   - **Clinical + Practical: 3 credit hours → 90 hours**
7. **Course coordinator: Prof. Hoda Mokhtar Bahr (Prof. of chest diseases, Tanta University)**
8. **Internal reviewer: Prof. Wafaa Saleh El-Shimy (Prof. of chest diseases, Tanta University)**
9. **External reviewer: Prof. El-Sayed Salem (Prof. of chest diseases, El-Kaser El-Ainy University)**
10. **Authorization date of course specification: 2 / 2 / 2016 .**

B- Professional Information

1 – Overall Course aims

Our course aims to:

• Develop a high level of knowledge and understanding of pleural diseases, chest wall diseases, mediastinal diseases and lung cancers
• Develop skills in the assessment of pleural diseases, chest wall diseases, mediastinal diseases and lung cancers
• Develop skills in managing patients with pleural diseases, chest wall diseases, mediastinal diseases and lung cancers
• Highlight the importance of preventative medicine and community services
• Develop understanding of service provision
• Develop effective communication skills
• Develop teaching skills
• Develop good critical appraisal skills
• Develop research skills
• Develop appropriate attitudes in a multicultural society
• Develop problem-solving skills.
• Provide a unique experience of how medicine is practiced in specialized chest institute.

• Provide an experience which is intellectually stimulating, enjoyable, and meets students' needs
• Provide an internationally accepted postgraduate qualification
• Stimulate lifelong learning

2 – Intended learning outcomes (ILOs):

a-knowledge and understanding:

By the end of the course, student should be able to:

a1 - mention the etiology, epidemiology, pathology, pathophysiology, genetic, clinical feature diagnosis, management of pleural diseases, chest wall diseases, mediastinal diseases and lung cancers

a2 –mention topics closely related to pleural diseases, chest wall diseases, mediastinal diseases and lung cancers. e.g. chest radiology, immunology, pleural biopsy ,bronchoscopy, thoracoscopy and mediastinoscopy.

a3 – Identify the effect of other systemic diseases on pleural diseases, chest wall diseases, mediastinal diseases and lung cancers

a4 – Describe the importance of a multidisciplinary approach

a.5- Provide an experience which is intellectually stimulating, enjoyable, and meets students' need

a.6 Recognize rights of patients to play a part in the decision-making process of their own management

b-intellectual skills

By the end of the course, student should be able to:

b1**-** Plan investigations appropriately and according to the resources**.**

b2 -Interpret lung function tests, including arterial blood gases, CT chest, HRCT, MRI of pleural diseases, chest wall diseases, mediastinal diseases and lung cancers

b3 - Identify and solve problems of in management of pleural diseases, chest wall diseases, mediastinal diseases and lung cancers

b4-Argue and discuss medical issue on evidence based manner.

c-Professional &practical skills

By the end of the course, student should be able to:

c1- Demonstrate and perform how a pleural tapping, intercostals tube and lung function for pleural diseases, chest wall diseases, mediastinal diseases and lung cancers.

c2- Demonstrate and perform as assistant the use bronchoscopy , pleural biopsy, Thoracoscopy, for pleural diseases, and lung cancers..

c3- Write and evaluate a professional medical report related to chest diseases, reflecting case diagnosis and management plane , and respecting medico legal aspects. c.4-

Use recent technological tools as computer and internet, to serve his career through searches and assignments

d-General transferable skills

By the end of the course, student should be able to:

d1 - Present and give scientific presentations.

d2 -Communicate and interact effectively with student & other people and in a small group

d3 - Work as part of a team, recognizing the strengths, weaknesses, needs and sensitivities of others.

d.4- Adopt respect to all colleagues in his medical team

d.5-Apply ethical principles on treating the patients

3-Course contents

Total credit hours 7 (4 hours lectures and 3 hours clinical)

- ✓ **The lecture part (4 credit hours) :** is 4 hours weekly for one semester (15 weeks)→ 60 hours
- ✓ **Clinical part (3 credit hours):** is 6 hours weekly (15 weeks)→ 90 hours in the form of:

- Clinical data attendance +bedside teaching (2 hour / a week)
- patients clinical staff round (2 hour / a week)
- practical skills (2 hours / a week)

Topics	No. of hours	
	Lecture And Tutorial	Clinical/ lab And Practical skills
DISORDERS OF THE PLEURAL SPACE : 1. Non-Malignant Pleural Effusions 2. Malignant Pleural Effusions 3. Pneumothorax 4. Malignant Mesothelioma and Other Primary Pleural Tumors	4 hours weekly for 3 weeks	6 hours weekly for 3 weeks

DISEASES OF THE MEDIASTINUM: • Nonneoplastic Disorders of the Mediastinum • Congenital Cysts of the Mediastinum: Bronchopulmonary Foregut Anomalies Acquired Lesions of the Mediastinum: Benign and Malignant	4 hours weekly for 4 weeks	6 hours weekly for 4 weeks
DISORDERS OF THE CHESTWALL, DIAPHRAGM, AND SPINE: • Nonmuscular Diseases of the Chest Wall • Effects of Neuromuscular Diseases on Ventilation Management of Neuromuscular Respiratory Muscle Dysfunction	4 hours weekly for 4 weeks	6 hours weekly for 4 weeks
Cancer of the Lungs: • Genetic and Molecular Changes of Human Lung Cancer • The Solitary Pulmonary Nodule: A Systematic Approach • The Pathology of Non–Small Cell Lung Carcinoma • Part I: Treatment of Non–Small-Cell Lung Cancer: Surgical • Part II: Treatment of Non-Small-Cell Lung • Cancer: Chemotherapy. • Part III: Treatment of Non–Small-Cell Lung Cancer: Radiation Therapy. • Small Cell Lung Cancer: Diagnosis, Treatment, and Natural History . • Primary Lung Tumors Other Than Bronchogenic Carcinoma: Benign and Malignanti • Extrapulmonary Syndromes Associated with Lung Tumors • Pulmonary Metastases	4 hours weekly for 4 weeks	6 hours weekly for 4 weeks

Detailed curriculum and log book is annexed

- Students should attend at least 75% of lectures, clinical practice, annual meeting, clinical rounds and tutorials.
- Student should perform clinical practice according to log book successfully before the examination
- Student should work as assistant lecture in the university hospital and shift according to hospital requirement for at least 2 years after registered as assistant lecture and enter the programme.
- They should be responsible for patient admission and follow up by investigations, treatment plan, discharge under supervision of his consultant.
- Student should be responsible for emergency on his department and dealing with it carefully & successfully by rapid and good decision under supervision of his consultant.
- Student should record all his activities and skills during the training course programmed on his log book signed by the consultant.

Scientific activity: 1 credit hour/ 4hours weekly in one semester→ (60 hours)

- It's in attending : seminars, research forum, journal clubs, dissertation defenses, conferences, workshops or training courses

4-Teaching and learning methods

Lectures, seminars, journal clubs, bed side teaching, case presentation, assignments, conference participation observation and hands on practice

5-Student Assessment

5.1…MCQs….to assess (a.1,a.2,a.3,a4,a5,a6,b.1,b.3)
5.2… log book… to assess (a4,a5,a6, b.2,b.3,b.4,c.1,c.2,c.3,c.4,c.5,d.1,d.2,d.3,d.4,d.5)

- Assessment schedule

بعد نهاية المقرر يقيم الطالب عن طريق اختبار اختيار من متعدد MCQs. يعقد الاختبار فى خلال الأسبوع الأخير من كل فصل دراسى ويرصد فى سجل الطالب(Transcript) جميع درجاته الحاصل عليها فى المقررات وتدخل جميعها فى حساب Cumulative Grade Point Average (CGPA) ولا يحسب

للطالب مقرر حصل فيه على تقدير اقل من (C) ضمن الساعات المطلوبة للحصول على الدرجة طبقا للماد ة

24 من لائحة الدراسات العليا 2013-2014

6- Weighing of assessments

1. **MCQs exam: at the last week of each semester (the student's grade shouldn't be less than (C) to pass each semester**

2. **Log book: Students should attend at least 75% of lectures, clinical practice, annual meeting, clinical rounds and tutorials.**

7- List of references

7.1 Course notes

7.2 Text book

References (list them):

- Fishman's Pulmonary Diseases and Disorders
- Crofton and Douglas's Respiratory Disease
- Eagan's fundamentals of respiratory care
- Murray & Nadle
- Periodicals of American Journal of Chest Diseases
- Periodicals of European Respiratory Journal
- Periodicals of Chest Medicine
- Update guidelines of Asthma, COPD, Lung Cancer, Pulmonary Infections
- The ICU Paul L. Marino
- Pulmonary Clinical Secrets

7.4 Periodicals and web sites

8-Other resources/ facilities required for teaching and learning to achieve the above ILOs

The department has regular daily lists for pulmonary function test.
The department has ICU emergency Unit for treatment of respiratory failure patients.
A list for sleep study medicine
A list for bronchoscope is regulated weekly
A list for thoracoscope diagnostic and ablative therapy of pleural diseases is regulated weekly
Free Internet access for international data bases is available for all doctorate students through the faculty postgraduate library
The essential text books for this course are available either in department or faculty library

9-we certify that all of the information required to deliver this course is contained in the above specifications and will be implemented

We verify that the above Course and the analysis of students and external evaluator opinions are accurate.

Course coordinator
name……..signature……Date……

Head of department

name……..signature……Date……

Head of quality assurance unit:
name……..signature……Date……

Quality Assurance Unit

Tanta University
Faculty of Medicine

Department of Chest

Course Specifications

Doctorate Degree in chest diseases (CHEST 9006)

- Infectious diseases of the lung
- HIV

2015-2016

Chest Doctorate Degree, Course Specifications

University: Tanta Faculty: Medicine Department: Chest

A- Administrative Information

1. **Course title: of Chest Medicine and respiratory critical care for chest doctorate degree**
2. **Department offering the program: Chest departments.**
3. **Department responsible for the course: Chest department.**
4. **Course code: CHEST 9006**
5. **Level: Second part.**
6. **No. of Credit / taught hours: 7/150 (for 15 weeks)**
   - **Lectures + Tutorial: 4 credit hours→ 60 hours**
   - **Clinical + Practical: 3 credit hours → 90 hours**
7. **Course coordinator: Prof. Hoda Mokhtar Bahr (Prof. of chest diseases, Tanta University)**
8. **Internal reviewer: Prof. Wafaa Saleh El-Shimy (Prof. of chest diseases, Tanta University)**
9. **External reviewer: Prof. El-Sayed Salem (Prof. of chest diseases, El-Kaser El-Ainy University)**
10. **Authorization date of course specification: 2 / 2 / 2016 .**

B- Professional Information

1 – Overall Course aims

Our course aims to:

- Develop a high level of knowledge and understanding of infectious lung diseases
- Develop skills in the assessment of infectious lung diseases
- Develop skills in managing patients with infectious lung diseases
- Highlight the importance of preventative medicine and community services
- Develop understanding of service provision
- Develop effective communication skills
- Develop teaching skills
- Develop good critical appraisal skills
- Develop research skills
- Develop appropriate attitudes in a multicultural society
- Develop problem-solving skills.
- Provide a unique experience of how medicine is practiced in specialized chest institute.
- Provide an experience which is intellectually stimulating, enjoyable, and meets students' needs
- Provide an internationally accepted postgraduate qualification
- Stimulate lifelong learning

2 – Intended learning outcomes (ILOs):

By the end of the course, student should be able to:

a1 - mention the etiology, epidemiology, pathology, pathophysiology, clinical feature diagnosis, management of pulmonary infectious diseases

a2 – mention topics closely related to pulmonary infectious diseases. e.g. chest radiology, immunology ,bronchoscopy, specimens collections, bacteriology of each pathogens.

a3 – Identify the causes of most pathogenic organism in the present culture and its related topic of management and infection control.

a4 – Describe the importance of a multidisciplinary approach

a.5- Provide an experience which is intellectually stimulating, enjoyable, and meets students' need

a.6 Recognize rights of patients to play a part in the decision-making process of their own management

b-intellectual skills

By the end of the course, student should be able to:

b1**-** Plan investigations appropriately and according to the resources**.**

b2 -Interpret laboratory investigation whether general or specific , Chest xray , CT chest, HRCT, of pulmonary infectious diseases

b3 - Identify and solve problems of in management of pulmonary infectious diseases

b4-Argue and discuss medical issue on evidence based manner.

c-Professional &practical skills

By the end of the course, student should be able to:

c1- Demonstrate and perform of specimen collection whether blood or sputum or bronchoalveolay lavage or pleura of all pulmonary infectious diseases

c2- Demonstrate and perform as assistant the use bronchoscopy in pulmonary infectious diseases c3- Write and evaluate a professional medical report related to chest diseases, reflecting case diagnosis and management plane , and respecting medico legal aspects.

c.4-Use recent technological tools as computer and internet, to serve his career through searches and assignments

d-General transferable skills

By the end of the course, student should be able to:

d1 - Present and give scientific presentations.

d2 -Communicate and interact effectively with student & other people and in a small group

d3 - Work as part of a team, recognizing the strengths, weaknesses, needs and sensitivities of others.

d.4- Adopt respect to all colleagues in his medical team

d.5-Apply ethical principles on treating the patients

3-Course contents

Total credit hours 7 (4 hours lectures and 3 hours clinical)

- ✓ **The lecture part (4 credit hours) :** is 4 hours weekly for one semester (15 weeks)→ 60 hours
- ✓ **Clinical part (3 credit hours):** is 6hours weekly (15 weeks)→ 90 hours in the form of:

- Clinical data attendance +bedside teaching (2 hour / a week)
- patients clinical staff round (2 hour / a week)
- practical skills (2 hours / a week)

Topics	No. of hours	
	Lecture And Tutorial	Clinical/ lab And Practical skills
INFECTIOUS DISEASES OF THE LUNGS : General Concepts: • Pulmonary Clearance of Infectious Agents • Approach to the Patient with Pulmonary Infection • The Radiology of Pulmonary Infection • The Pathology of Pulmonary Infection • Principles of Antibiotic Use and the Selection of Empiric Therapy for Pneumonia • Vaccination against Pulmonary Infections Microbial Virulence Factors in Pulmonary Infections	4 hours weekly for 3 weeks	6 hours weekly for 3 weeks

Major Pathogens in Pulmonary Infections : • **Bacterial pneumonia** Community acquired pneumonia,Caused by Gram-Positive Bacteria,Nosocomial Pneumonia , Health care associated pneumonia, ventilator associated pneumonia.	4 hours weekly for 2 weeks	4 hours weekly for 2 weeks
• **Fungal infection** Aspergillus, Candida, and Other Opportunistic Mold Infections of the Lung, Cryptococcosis and the Endemic Mycos • **Viral Infections** of the Lung and Respiratory Tract • **Protozoan Infections** of the Thorax Helminthic Diseases of the Lungs, Zoonotic and Other unusual Bacterial pneumonias	4 hours weekly for 4 weeks	6 hours weekly for 4 weeks
Mycobacterial Infections : • The Epidemiology, Prevention, and Control of Tuberculosis • The Microbiology, Virulence, and Immunology of Mycobacteria • Clinical Presentation and Treatment of Tuberculosis • Mycobacterial Infections and HIV Infection • Diseases due to Non-Tuberculous Mycobacter	4 hours weekly for 4 weeks	6 hours weekly for 4 weeks
Pulmonary Infections in Special Hosts : • Pneumonia in Surgery and Trauma • Pulmonary Infection in Immunocompromised Hosts • Human Immunodeficiency Virus and Pulmonary Infections	4 hours weekly for 2 weeks	6 hours weekly for 2 weeks

Detailed curriculum and log book is annexed

- Students should attend at least 75% of lectures, clinical practice, annual meeting, clinical rounds and tutorials.
- Student should perform clinical practice according to log book successfully before the examination
- Student should work as assistant lecture in the university hospital and shift according to hospital requirement for at least 2 years after registered as assistant lecture and enter the programme.
- They should be responsible for patient admission and follow up by investigations, treatment plan, discharge under supervision of his consultant.
- Student should be responsible for emergency on his department and dealing with it carefully & successfully by rapid and good decision under supervision of his consultant.
- Student should record all his activities and skills during the training course programmed on his log book signed by the consultant.

Scientific activity: 1 credit hour/ 4hours weekly in one semester→ (60 hours)

- It's in attending : seminars, research forum, journal clubs, dissertation defenses, conferences, workshops or training courses

4-Teaching and learning methods

Lectures, seminars, journal clubs, bed side teaching, case presentation, assignments, conference participation observation and hands on practice

5-Student Assessment

5.1…MCQs….to assess (a.1,a.2,a.3,a4,a5,a6,b.1,b.3)
5.2… log book… to assess (a4,a5,a6, b.2,b.3,b.4,c.1,c.2,c.3,c.4,c.5,d.1,d.2,d.3,d.4,d.5)

- Assessment schedule

بعد نهاية المقرر يقيم الطالب عن طريق اختبار اختيار من متعدد MCQs. يعقد الاختبار فى خلال الأسبوع الأخير من كل فصل دراسى ويرصد فى سجل الطالب(Transcript) جميع درجاته الحاصل عليها فى المقررات وتدخل جميعها فى حساب Cumulative Grade Point Average (CGPA) ولا يحسب

للطالب مقرر حصل فيه على تقدير اقل من (C) ضمن الساعات المطلوبة للحصول على الدرجة طبقا للماد ة

24 من لائحة الدراسات العليا 2013-2014

6- Weighing of assessments

1. **MCQs exam: at the last week of each semester (the student's grade shouldn't be less than (C) to pass each semester**

2. **Log book: Students should attend at least 75% of lectures, clinical practice, annual meeting, clinical rounds and tutorials.**

7- List of references

7.1 Course notes

7.2 Text book

References (list them):

- Fishman's Pulmonary Diseases and Disorders
- Crofton and Douglas's Respiratory Disease
- Eagan's fundamentals of respiratory care
- Murray & Nadle
- Periodicals of American Journal of Chest Diseases
- Periodicals of European Respiratory Journal
- Periodicals of Chest Medicine
- Update guidelines of Asthma, COPD, Lung Cancer, Pulmonary Infections
- The ICU Paul L. Marino
- Pulmonary Clinical Secrets

7.4 Periodicals and web sites

8-Other resources/ facilities required for teaching and learning to achieve the above ILOs

The department has regular daily lists for pulmonary function test.
The department has ICU emergency Unit for treatment of respiratory failure patients.
A list for sleep study medicine
A list for bronchoscope is regulated weekly
A list for thoracoscope diagnostic and ablative therapy of pleural diseases is regulated weekly
Free Internet access for international data bases is available for all doctorate students through the faculty postgraduate library
The essential text books for this course are available either in department or faculty library

9-we certify that all of the information required to deliver this course is contained in the above specifications and will be implemented

We verify that the above Course and the analysis of students and external evaluator opinions are accurate.

Course coordinator
name……..signature……Date……

Head of department

name……..signature……Date……

Head of quality assurance unit:
name……..signature……Date……

Quality Assurance Unit

Tanta University
Faculty of Medicine

Department of Chest

Course Specifications

Doctorate Degree in chest diseases (CHEST 9007)

- Occupational lung diseases
- Environmental disorders
- Interstitial lung diseases
- Depositional lung disease
- Granulomatous lung diseases
- Alveolar diseases
- Lymphoprolifrative disorders

2015-2016

Chest Doctorate Degree, Course Specifications

University: Tanta Faculty: Medicine Department: Chest

A- Administrative Information

1. **Course title: of Chest Medicine and respiratory critical care for chest doctorate degree**
2. **Department offering the program: Chest departments.**
3. **Department responsible for the course: Chest department.**
4. **Course code: CHEST 9007**
5. **Level: Second part.**
6. **No. of Credit / taught hours: 7/150 (for 15 weeks)**
   - **Lectures + Tutorial: 4 credit hours→ 60 hours**
   - **Clinical + Practical: 3 credit hours → 90 hours**
7. **Course coordinator: Prof. Hoda Mokhtar Bahr (Prof. of chest diseases, Tanta University)**
8. **Internal reviewer: Prof. Wafaa Saleh El-Shimy (Prof. of chest diseases, Tanta University)**
9. **External reviewer: Prof. El-Sayed Salem (Prof. of chest diseases, El-Kaser El-Ainy University)**
10. **Authorization date of course specification: 2 / 2 / 2016 .**

B- Professional Information

1 – Overall Course aims

Our course aims to:

• Develop a high level of knowledge and understanding of pulmonary interstitial diseases, lymphoproliferative diseases, alveolar diseases
• Develop skills in the assessment of pulmonary interstitial diseases, lymphoproliferative diseases, alveolar diseases
• Develop skills in managing patients with pulmonary interstitial diseases, lymphoproliferative diseases, alveolar diseases
• Highlight the importance of preventative medicine and community services
• Develop understanding of service provision
• Develop effective communication skills
• Develop teaching skills
• Develop good critical appraisal skills
• Develop research skills
• Develop appropriate attitudes in a multicultural society
• Develop problem-solving skills.
• Provide a unique experience of how medicine is practiced in specialized chest institute.

• Provide an experience which is intellectually stimulating, enjoyable, and meets students' needs
• Provide an internationally accepted postgraduate qualification
• Stimulate lifelong learning

2 – Intended learning outcomes (ILOs):

a-knowledge and understanding:
By the end of the course, student should be able to:
a1 - mention the etiology, epidemiology, pathology, pathophysiology, clinical feature diagnosis, management of pulmonary interstitial diseases, lymphoproliferative diseases, alveolar diseases.
a2 – mention topics closely related to pulmonary interstitial diseases. e.g. pulmonary function test, bronchial provocation test. chest radiology, immunology ,bronchoscopy, and possible biopsy collection.
a3 – Identify the causes of environmental and occupational exposure in precipitating pulmonary diseases and methods of management and control.
a4 – Describe the importance of a multidisciplinary approach
a.5- Provide an experience which is intellectually stimulating, enjoyable, and meets students' need a.6 Recognize rights of patients to play a part in the decision-making process of their own management

b-intellectual skills
By the end of the course, student should be able to:
b1**-** Plan investigations appropriately and according to the resources**.**
b2 -Interpret investigation whether pulmonary function test, Chest X-ray, CT chest, HRCT, and bronchoscopy.
b3 - Identify and solve problems of in management of pulmonary interstitial diseases, alveolar diseases, occupational and environmental exposure diseases.
b4-Argue and discuss medical issue on evidence based manner.

c-Professional &practical skills
By the end of the course, student should be able to:
c1- Demonstrate and perform of specimen collection whether blood or bronchoalveolar lavage in pulmonary interstitial diseases , granulomatous diseases
c2- Demonstrate and perform as assistant the use bronchoscope & thoracoscope biopsy in pulmonary interstitial diseases
c3- Write and evaluate a professional medical report related to chest diseases, reflecting case diagnosis and management plane , and respecting medico legal aspects.
c.4- Use recent technological tools as computer and internet, to serve his career through searches and assignments

d-General transferable skills

By the end of the course, student should be able to:

d1 - Present and give scientific presentations.

d2 -Communicate and interact effectively with student & other people and in a small group

d3 - Work as part of a team, recognizing the strengths, weaknesses, needs and sensitivities of others.

d.4- Adopt respect to all colleagues in his medical team

d.5-Apply ethical principles on treating the patients

3-Course contents

Total credit hours 6 (4 hours lectures and 2 hours clinical)

- ✓ **The lecture part (4 credit hours) :** is 4 hours weekly for one semester (15 weeks)→ 60 hours
- ✓ **Clinical part (3 credit hours):** is 6hours weekly (15 weeks)→ 90 hours in the form of:

- Clinical data attendance +bedside teaching (2 hour / a week)
- patients clinical staff round (2 hour / a week)
- practical skills (2 hours / a week)

Topics	No. of hours	
	Lecture And Tutorial	Clinical/ lab And Practical skills
Occupational Disorders • Occupational Lung Disorders: General Principles and Approaches, • Asbestos-Related Lung Disease, • Chronic Beryllium Disease ,Hard-Metal Lung Diseases, Coal Workers' Lung Diseases and Silicosis • Occupational Asthma, Byssinosis, and Industrial Bronchitis ,Acute and Chronic Responses to Toxic Inhalations	4 hours weekly for 2 weeks	6 hours weekly for 2 weeks

Environmental Disorders • Indoor and Outdoor Air Pollution.,High-Altitude Physiology and ClinicalDisorders ,Diving Injuries and Air Embolism, Thermal Lung Injury and Acute Smoke Inhalation .	4 hours weekly for 2 weeks	6 hours weekly for 2 weeks
Immunologic and Interstitial Diseases • Interstitial Lung Disease: A Clinical Overview and General Approach , • Systemic Sarcoidosis , • Idiopathic Pulmonary Fibrosis , • Hypersensitivity Pneumonitis, • Radiation Pneumonitis, • Pulmonary Manifestations of the Collagen Vascular Diseases , • The Eosinophilic Pneumonias	4 hours weekly for 3 weeks	6 hours weekly for 3 weeks
DRUG-INDUCED LUNG DISEASES • Pulmonary Toxicity Associated with Chemotherapeutic Agents • Drug-Induced Lung Disease Due to Nonchemotherapeutic Agents	4 hours weekly for 2 weeks	6 hours weekly for 2 weeks
ALVEOLAR DISEASES • Alveolar Hemorrhage Syndromes . • Mechanisms of Aspiration Disorders . • Pulmonary Alveolar Proteinosis .	4 hours weekly for 2 weeks	6 hours weekly for 2 weeks
Lymphoproliferative Disorders • Lymphoproliferative and Hematologic Diseases Involving the Lung and Pleura	4 hours weekly for 2 weeks	6 hours weekly for 2 weeks
Depositional and Infiltrative Disorders • Depositional Diseases of the Lungs • Pulmonary Langerhan's-Cell	4 hours weekly for 2 weeks	6 hours weekly for 2 weeks

Histiocytosis • Pulmonary Lymphangioleiomyomatosis • The Lungs in Patients with Inborn Errors of Metabolism		

Detailed curriculum and log book is annexed

- Students should attend at least 75% of lectures, clinical practice, annual meeting, clinical rounds and tutorials.
- Student should perform clinical practice according to log book successfully before the examination
- Student should work as assistant lecture in the university hospital and shift according to hospital requirement for at least 2 years after registered as assistant lecture and enter the programme.
- They should be responsible for patient admission and follow up by investigations, treatment plan, discharge under supervision of his consultant.
- Student should be responsible for emergency on his department and dealing with it carefully & successfully by rapid and good decision under supervision of his consultant.
- Student should record all his activities and skills during the training course programmed on his log book signed by the consultant.

Scientific activity: 1 credit hour/ 4hours weekly in one semester→ (60 hours)

- It's in attending : seminars, research forum, journal clubs, dissertation defenses, conferences, workshops or training courses

4-Teaching and learning methods

Lectures, seminars, journal clubs, bed side teaching, case presentation, assignments, conference participation observation and hands on practice

5-Student Assessment

5.1…MCQs….to assess (a.1,a.2,a.3,a4,a5,a6,b.1,b.3)

5.2… log book… to assess (a4,a5,a6, b.2,b.3,b.4,c.1,c.2,c.3,c.4,c.5,d.1,d.2,d.3,d.4,d.5)

- Assessment schedule

بعد نهاية المقرر يقيم الطالب عن طريق اختبار اختيار من متعدد MCQs. يعقد الاختبار فى خلال الأسبوع الأخير من كل فصل دراسى ويرصد فى سجل الطالب(Transcript) جميع درجاته الحاصل عليها فى المقررات وتدخل جميعها فى حساب Cumulative Grade Point Average (CGPA) ولا يحسب للطالب مقرر حصل فيه على تقدير اقل من (C) ضمن الساعات المطلوبة للحصول على الدرجة طبقا للماد ة 24 من لائحة الدراسات العليا 2013-2014

6- Weighing of assessments

1. **MCQs exam: at the last week of each semester (the student's grade shouldn't be less than (C) to pass each semester**

2. **Log book: Students should attend at least 75% of lectures, clinical practice, annual meeting, clinical rounds and tutorials.**

7- List of references

7.1 Course notes

7.2 Text book

References (list them):

- Fishman's Pulmonary Diseases and Disorders
- Crofton and Douglas's Respiratory Disease
- Eagan's fundamentals of respiratory care
- Murray & Nadle
- Periodicals of American Journal of Chest Diseases
- Periodicals of European Respiratory Journal
- Periodicals of Chest Medicine
- Update guidelines of Asthma, COPD, Lung Cancer, Pulmonary Infections
- The ICU Paul L. Marino
- Pulmonary Clinical Secrets

7.4 Periodicals and web sites

8-Other resources/ facilities required for teaching and learning to achieve the above ILOs

The department has regular daily lists for pulmonary function test.
The department has ICU emergency Unit for treatment of respiratory failure patients.
A list for sleep study medicine
A list for bronchoscope is regulated weekly

A list for thoracoscope diagnostic and ablative therapy of pleural diseases is regulated weekly
Free Internet access for international data bases is available for all doctorate students through the faculty postgraduate library
The essential text books for this course are available either in department or faculty library

9-we certify that all of the information required to deliver this course is contained in the above specifications and will be implemented

We verify that the above Course and the analysis of students and external evaluator opinions are accurate.

Course coordinator
name……..signature……Date……

Head of department

name……..signature……Date……

Head of quality assurance unit:
name……..signature……Date……

Quality Assurance Unit

Tanta University
Faculty of Medicine

Department of Chest

Course Specifications

Doctorate Degree in chest diseases (CHEST 9008)

- Respiratory failure
- Management and therapeutic intervention
- Surgical aspect of pulmonary medicine
- Sleep medicine
- Lung in relation to other systems

2015-2016

Chest Doctorate Degree, Course Specifications

University: Tanta Faculty: Medicine Department: Chest

A- Administrative Information

1. **Course title: of Chest Medicine and respiratory critical care for chest doctorate degree**
2. **Department offering the program: Chest departments.**
3. **Department responsible for the course: Chest department.**
4. **Course code: CHEST 9008**
5. **Level: Second part.**
6. **No. of Credit / taught hours: 7/150 (for 15 weeks)**
   - **Lectures + Tutorial: 4 credit hours→ 60 hours**
   - **Clinical + Practical: 3 credit hours → 90 hours**
7. **Course coordinator: Prof. Hoda Mokhtar Bahr (Prof. of chest diseases, Tanta University)**
8. **Internal reviewer: Prof. Wafaa Saleh El-Shimy (Prof. of chest diseases, Tanta University)**
9. **External reviewer: Prof. El-Sayed Salem (Prof. of chest diseases, El-Kaser El-Ainy University)**
10. **Authorization date of course specification: 2 / 2 / 2016 .**

B- Professional Information

1 – Overall Course aims

Our course aims to:

• Develop a high level of knowledge and understanding of respiratory failure, pulmonary edema,and sleep disorders
• Develop skills in the assessment of respiratory failure, pulmonary edema,and sleep disorders
• Develop skills in managing patients with respiratory failure, pulmonary edema,and sleep disorders
• Highlight the importance of preventative medicine and community services
• Develop understanding of service provision
• Develop effective communication skills
• Develop teaching skills
• Develop good critical appraisal skills
• Develop research skills
• Develop appropriate attitudes in a multicultural society
• Develop problem-solving skills.
• Provide a unique experience of how medicine is practiced in specialized chest institute.

• Provide an experience which is intellectually stimulating, enjoyable, and meets students' needs
• Provide an internationally accepted postgraduate qualification
• Stimulate lifelong learning

2 – Intended learning outcomes (ILOs):

a-knowledge and understanding:
By the end of the course, student should be able to:
a1 - mention the etiology, epidemiology, pathology, pathophysiology, clinical feature diagnosis, management of respiratory failure, pulmonary edema,and sleep disorders.
a2 – mention topics closely related to respiratory failure, pulmonary edema,and sleep disorders.
. e.g. chest radiology, Oxygen therapy, Mechanical ventilation ,bronchoscopy.
a3 – Identify the effect of Chest diseases with other systemic diseases .
a4 – Describe the importance of a multidisciplinary approach
a.5- Provide an experience which is intellectually stimulating, enjoyable, and meets students' need
a.6 Recognize rights of patients to play a part in the decision-making process of their own management

b-intellectual skills
By the end of the course, student should be able to:
b1**-** Plan investigations appropriately and according to the resources**.**
b2 -Interpret lung function tests, including arterial blood gases, CT chest, HRCT, MRI. Polysomnography.
b3 - Identify and solve problems of in management of respiratory failure, pulmonary edema,and sleep disorders.
b4-Argue and discuss medical issue on evidence based manner.

c-Professional &practical skills
By the end of the course, student should be able to:
c1- Demonstrate and perform how a Oxygen therapy , mechanical ventilation, Polysomnography demonestrated.
c2- Demonstrate and perform as assistant the use bronchoscopy , tracheal intubation
c3- Write and evaluate a professional medical report related to chest diseases, reflecting case diagnosis and management plane , and respecting medico legal aspects.
c.4-Use recent technological tools as computer and internet, to serve his career through searches and assignments

d-General transferable skills
By the end of the course, student should be able to:
d1 - Present and give scientific presentations.
d2 -Communicate and interact effectively with student & other people and in a small group

d3 - Work as part of a team, recognizing the strengths, weaknesses, needs and sensitivities of others.

d.4- Adopt respect to all colleagues in his medical team

d.5-Apply ethical principles on treating the patients

3-Course contents

Total credit hours 7 (4 hours lectures and 3 hours clinical)

- ✓ **The lecture part (4 credit hours) :** is 4 hours weekly for one semester (15 weeks)→ 60 hours
- ✓ **Clinical part (3 credit hours):** is 6hours weekly (15 weeks)→ 90 hours in the form of:

- Clinical data attendance +bedside teaching (2 hour / a week)
- patients clinical staff round (2 hour / a week)
- practical skills (2 hours / a week)

Topics	No. of hours	
	Lecture And Tutorial	Clinical/ lab And Practical skills
ACUTE RESPIRATORY FAILURE : **Lung Failure:** • Respiratory Failure: An Overview • Acute Respiratory Distress Syndrome: Pathogenesis • Acute Lung Injury and the Acute Respiratory Distress Syndrome: Clinical Features,Management, and Outcomes • Sepsis, Systemic Inflammatory Response Syndrome, and Multiple Organ Dysfunction Syndrome . • Acute Respiratory Failure in the Surgical Patient	4 hours weekly for3 weeks	6 hours weekly for 3 weeks

Respiratory Pump Failure : • Pump Failure: The Pathogenesis of Hypercapnic • Respiratory Failure in Patients with Lung and Chest Wall Disease .	4 hours weekly for 1 week	6 hours weekly for 1 week
Management and Therapeutic Interventions : • Oxygen Therapy and Pulmonary Oxygen Toxicity • Pulmonary Pharmacotherapy • Intubation and Upper Airway Management • Hemodynamic and Respiratory Monitoring in Acute Respiratory Failure • Principles of Mechanical Ventilation • Nutrition in Acute Respiratory Failure • Treatment of Agitation in the Intensive Care Unit • Decision Making in the Intensive Care Unit • Ethics in the Intensive Care Unit.	4 hours weekly for 4 weeks	6 hours weekly for4 weeks
SURGICAL ASPECTS OF PULMONARY MEDICINE : • Perioperative Care of the Patient Undergoing Lung Resection • Thoracic Trauma • Lung Transplantation	4 hours weekly for 2 weeks	6 hours weekly for 2 weeks
SLEEP AND SLEEP DISORDERS: • The Stages of Sleep • Changes in the Cardiorespiratory System During Sleep • Sleep Apnea Syndromes • Differential Diagnosis and Evaluation of Sleepiness	4 hours weekly for3 weeks	6 hours weekly for 3 weeks
Lung in relation to other systems: • The relation between lung and Brain, GIT, Kidney, Heart, Skin……..etc	4 hours weekly for 2 weeks	6 hours weekly for 2 weeks

Detailed curriculum and log book is annexed

- Students should attend at least 75% of lectures, clinical practice, annual meeting, clinical rounds and tutorials.
- Student should perform clinical practice according to log book successfully before the examination
- Student should work as assistant lecture in the university hospital and shift according to hospital requirement for at least 2 years after registered as assistant lecture and enter the programme.
- They should be responsible for patient admission and follow up by investigations, treatment plan, discharge under supervision of his consultant.
- Student should be responsible for emergency on his department and dealing with it carefully & successfully by rapid and good decision under supervision of his consultant.
- Student should record all his activities and skills during the training course programmed on his log book signed by the consultant.

Scientific activity: 1 credit hour/ 4hours weekly in one semester→ (60 hours)

- It's in attending : seminars, research forum, journal clubs, dissertation defenses, conferences, workshops or training courses

4-Teaching and learning methods

Lectures, seminars, journal clubs, bed side teaching, case presentation, assignments, conference participation observation and hands on practice

5-Student Assessment

5.1…MCQs….to assess (a.1,a.2,a.3,a4,a5,a6,b.1,b.3)
5.2… log book… to assess (a4,a5,a6, b.2,b.3,b.4,c.1,c.2,c.3,c.4,c.5,d.1,d.2,d.3,d.4,d.5)

- Assessment schedule

بعد نهاية المقرر يقيم الطالب عن طريق اختبار اختيار من متعدد MCQs. يعقد الاختبار فى خلال الأسبوع الأخير من كل فصل دراسى ويرصد فى سجل الطالب(Transcript) جميع درجاته الحاصل عليها فى المقررات وتدخل جميعها فى حساب Cumulative Grade Point Average (CGPA) ولا يحسب للطالب مقرر حصل فيه على تقدير اقل من (C) ضمن الساعات المطلوبة للحصول على الدرجة طبقا للماد ة 24 من لائحة الدراسات العليا 2013-2014

6- Weighing of assessments

1. **MCQs exam: at the last week of each semester (the student's grade shouldn't be less than (C) to pass each semester**

2. **Log book: Students should attend at least 75% of lectures, clinical practice, annual meeting, clinical rounds and tutorials.**

7- List of references

7.1 Course notes

7.2 Text book

References (list them):

- Fishman's Pulmonary Diseases and Disorders
- Crofton and Douglas's Respiratory Disease
- Eagan's fundamentals of respiratory care
- Murray & Nadle
- Periodicals of American Journal of Chest Diseases
- Periodicals of European Respiratory Journal
- Periodicals of Chest Medicine
- Update guidelines of Asthma, COPD, Lung Cancer, Pulmonary Infections
- The ICU Paul L. Marino
- Pulmonary Clinical Secrets

7.4 Periodicals and web sites

8-Other resources/ facilities required for teaching and learning to achieve the above ILOs

The department has regular daily lists for pulmonary function test.
The department has ICU emergency Unit for treatment of respiratory failure patients.
A list for sleep study medicine
A list for bronchoscope is regulated weekly
A list for thoracoscope diagnostic and ablative therapy of pleural diseases is regulated weekly

Free Internet access for international data bases is available for all doctorate students through the faculty postgraduate library
The essential text books for this course are available either in department or faculty library

9-we certify that all of the information required to deliver this course is contained in the above specifications and will be implemented

We verify that the above Course and the analysis of students and external evaluator opinions are accurate.

Course coordinator
name……..signature……Date……

Head of department

name……..signature……Date……

Head of quality assurance unit:
name……..signature……Date……

Quality Assurance Unit

Tanta University
Faculty of Medicine

Department of Chest

Course Specifications

Doctorate Degree in chest diseases
Physiology
(CHEST 9001)

2016-2017

Chest Doctorate Degree, Course Specifications

University: Tanta Faculty: Medicine Department: Chest

A- Administrative Information

1. **Course title: of Chest Medicine and respiratory critical care for chest doctorate degree**
2. **Department offering the program: Chest departments.**
3. **Department responsible for the course: Chest department.**
4. **Course code: CHEST 9001**
5. **Level: first part.**
6. **No. of Credit / taught hours: 7/135 (for 15 weeks)**
   - **Lectures + Tutorial: 5 credit hours→ 75 hours**
   - **Practical: 2 credit hours → 60 hours**
7. **Course coordinator: Prof. Hoda Mokhtar Bahr (Prof. of chest diseases, Tanta University)**
8. **Internal reviewer: Prof. Wafaa Saleh El-Shimy (Prof. of chest diseases, Tanta University)**
9. **External reviewer: Prof. Ramadan Nafee (Prof. of chest diseases, Zagzig University)**
10. **Authorization date of course specification: / / 2017 .**

B- Professional Information

1 – Overall Course aims

Our course aims to:

•Develop a high level of knowledge and understanding of structure of normal lung
•Develop a high level of knowledge and understanding of Physiology of lung functions: ventilation, perfusion and diffusion.
•Develop a high level of knowledge and understanding of Physiology of non-respiratory function of lung .
•Develop a high level of knowledge and understanding of blood coagulation and hemostasis.
•Interpret data obtained from PFT.
•Interpret data obtained from ABG.
•Develop effective communication skills
•Develop teaching skills
•Develop good critical appraisal skills
•Develop research skills
•Develop appropriate attitudes in a multicultural society
•Develop problem-solving skills.
•Provide a unique experience of how medicine is practiced in specialized chest institute.
•Provide an experience which is intellectually stimulating, enjoyable, and meets students' needs

• Provide an internationally accepted postgraduate qualification
• Stimulate lifelong learning

2 – Intended learning outcomes (ILOs):

a-knowledge and understanding:
By the end of the course, student should be able to:
a1 – Mention the anatomical, physiological aspect of lung.
a2 – Mention topics closely related to respiratory medicine.
a3 – Identify the effect of the anatomical, physiological abnormalities and its relation to chest diseases
a4 – Describe the importance of a multidisciplinary approach
a.5– Provide an experience which is intellectually stimulating, enjoyable and meets student's needs.
a.6 Recognize rights of patients to play a part in the decision-making process of their own management

b-intellectual skills
By the end of the course, student should be able to:
b1**-** Plan investigations appropriately and according to the resources**.**
b2 -Interpret lung function tests, including arterial blood gases.
b3 - Identify and solve problems of chest diseases.
b4-Argue and discuss medical issue on evidence based manner.

c-Professional &practical skills
By the end of the course, student should be able to:
c1- Perform ABG sampling.
c2- Demonstrate the use of inhalers, a nebulizer and oxygen equipment .
c3- Perform and demonstrate complete pulmonary function, arterial blood gases.
c4- Write and evaluate a professional medical report related to chest diseases, reflecting case diagnosis and management plane , and respecting medico legal aspects.
c.5-Use recent technological tools as computer and internet, to serve his career through searches and assignments.

d-General transferable skills
By the end of the course, student should be able to:
d1 - Present and give scientific presentations.
d2 -Communicate and interact effectively with student & other people and in a small group

d3 - Work as part of a team, recognizing the strengths, weaknesses, needs and sensitivities of others.
d.4- Adopt respect to all colleagues in his medical team
d.5-Apply ethical principles on treating the patients

3-Course contents

Total credit hours 7(5 hours lectures and 2 hours clinical)

- ✓ **The lecture part (5 credit hours) :** is 5 hours weekly for one semester (15 weeks)→ 75 hours
- ✓ **Practical part (2 credit hours):** is 4 hours weekly (15 weeks)→ 60 hours in the form of:

- Clinical data attendance +bedside teaching (2 hour / a week)
- practical skills (2 hours / a week)

Topics	No. of hours	
	Lecture And Tutorial	Practical skills
Respiratory System • Function and structure of the lung • Non Respiratory function of the lung • Mechanics of breathing • Alveolar ventilation • Control of respiration • Pulmonary function tests • Transport of O2 and CO2 in the blood • Respiratory function of blood • Diffusion, chemical reactions and DLCO • Acid- Base balance	5 hours weekly for 7 weeks	4 hours weekly for 7 weeks

Cardiovascular system • Cardiac out put • Arterial Blood pressure • Blood flow to the lung and Pulmonary circulation • Capillary circulation • Pulmonary edema • Hemorrhage and shock	5 hours weekly for 4 weeks	4 hours weekly for 4 weeks
Blood • General component of blood and its function • Blood coagulation	5 hours weekly for 2 weeks	4 hours weekly for 2 weeks
Metabolism • Regulation of body temperature and body reaction.	5 hours weekly for 2 weeks	4 hours weekly for 2 weeks

Detailed curriculum and log book is annexed

- Students should attend at least 75% of lectures, practice, annual meeting, clinical rounds and tutorials.
- Student should work as assistant lecture in the university hospital and shift according to hospital requirement for at least 2 years after registered as assistant lecture and enter the program.
- Student should be responsible for emergency on his department and dealing with it carefully & successfully by rapid and good decision under supervision of his consultant.

- Student should record all his activities and skills during the training course programmed on his log book signed by the consultant.

4-Teaching and learning methods

Lectures, seminars, journal clubs, bed side teaching, case presentation, assignments, conference participation observation and hands on practice

5-Student Assessment

5.1…written and oral exam….to assess (a.1,a.2,a.3,a4,a5,a6,b.1,b.3)
5.2… log book… to assess (a4,a5,a6, b.2,b.3,b.4,c.1,c.2,c.3,c.4,c.5,d.1,d.2,d.3,d.4,d.5)

- Assessment schedule

بعد نهاية المقرر يقيم الطالب عن طريق اختبار تحريري وشفوي . يعقد الاختبار فى خلال الأسبوع الأخير من كل فصل دراسى ويرصد فى سجل الطالب(Transcript) جميع درجاته الحاصل عليها فى المقررات وتدخل جميعها فى حساب Cumulative Grade Point Average (CGPA) ولا يحسب للطالب مقرر حصل فيه على تقدير اقل من (C) ضمن الساعات المطلوبة للحصول على الدرجة طبقا للمادة 24 من لائحة الدراسات العليا 2013-2014

6- Weighing of assessments

1. **Written exam (90 mark) and oral exam (60 marks)with total (150mark): at the last week of each semester (the student's grade shouldn't be less than (C) to pass each semester**

2. **Log book: Students should attend at least 75% of lectures, annual meeting, and tutorials.**

7- List of references

7.1 Course notes

7.2 Text book

References (list them):

- Fishman's Pulmonary Diseases and Disorders
- Crofton and Douglas's Respiratory Disease
- Eagan's fundamentals of respiratory care
- Murray & Nadle
- Periodicals of American Journal of Chest Diseases
- Periodicals of European Respiratory Journal
- Periodicals of Chest Medicine

7.4 Periodicals and web sites

8-Other resources/ facilities required for teaching and learning to achieve the above ILOs

The department has regular daily lists for pulmonary function test.
The department has ICU emergency Unit for treatment of respiratory failure patients.
Free Internet access for international data bases is available for all doctorate students through the faculty postgraduate library
The essential text books for this course are available either in department or faculty library

9-we certify that all of the information required to deliver this course is contained in the above specifications and will be implemented

We verify that the above Course and the analysis of students and external evaluator opinions are accurate.

Course coordinator
name……..signature……Date……

Head of department

name……..signature……Date……

Head of quality assurance unit:
name……..signature……Date……

Quality Assurance Unit

Tanta University
Faculty of Medicine

Department of Chest

Course Specifications

Doctorate Degree in chest diseases
Physiology
(CHEST 9001)

2016-2017

Chest Doctorate Degree, Course Specifications

University: Tanta Faculty: Medicine Department: Chest

A- Administrative Information

1. **Course title: of Chest Medicine and respiratory critical care for chest doctorate degree**
2. **Department offering the program: Chest departments.**
3. **Department responsible for the course: Chest department.**
4. **Course code: CHEST 9001**
5. **Level: first part.**
6. **No. of Credit / taught hours: 7/135 (for 15 weeks)**
   - **Lectures + Tutorial: 5 credit hours→ 75 hours**
   - **Practical: 2 credit hours → 60 hours**
7. **Course coordinator: Prof. Hoda Mokhtar Bahr (Prof. of chest diseases, Tanta University)**
8. **Internal reviewer: Prof. Wafaa Saleh El-Shimy (Prof. of chest diseases, Tanta University)**
9. **External reviewer: Prof. Ramadan Nafee (Prof. of chest diseases, Zagzig University)**
10. **Authorization date of course specification: / / 2017 .**

B- Professional Information

1 – Overall Course aims

Our course aims to:

•Develop a high level of knowledge and understanding of structure of normal lung
•Develop a high level of knowledge and understanding of Physiology of lung functions: ventilation, perfusion and diffusion.
•Develop a high level of knowledge and understanding of Physiology of non-respiratory function of lung .
•Develop a high level of knowledge and understanding of blood coagulation and hemostasis.
•Interpret data obtained from PFT.
•Interpret data obtained from ABG.
•Develop effective communication skills
•Develop teaching skills
•Develop good critical appraisal skills
•Develop research skills
•Develop appropriate attitudes in a multicultural society
•Develop problem-solving skills.
•Provide a unique experience of how medicine is practiced in specialized chest institute.
•Provide an experience which is intellectually stimulating, enjoyable, and meets students' needs

• Provide an internationally accepted postgraduate qualification
• Stimulate lifelong learning

2 – Intended learning outcomes (ILOs):

a-knowledge and understanding:
By the end of the course, student should be able to:
a1 – Mention the anatomical, physiological aspect of lung.
a2 – Mention topics closely related to respiratory medicine.
a3 – Identify the effect of the anatomical, physiological abnormalities and its relation to chest diseases
a4 – Describe the importance of a multidisciplinary approach
a.5– Provide an experience which is intellectually stimulating, enjoyable and meets student's needs.
a.6 Recognize rights of patients to play a part in the decision-making process of their own management

b-intellectual skills
By the end of the course, student should be able to:
b1**-** Plan investigations appropriately and according to the resources**.**
b2 -Interpret lung function tests, including arterial blood gases.
b3 - Identify and solve problems of chest diseases.
b4-Argue and discuss medical issue on evidence based manner.

c-Professional &practical skills
By the end of the course, student should be able to:
c1- Perform ABG sampling.
c2- Demonstrate the use of inhalers, a nebulizer and oxygen equipment .
c3- Perform and demonstrate complete pulmonary function, arterial blood gases.
c4- Write and evaluate a professional medical report related to chest diseases, reflecting case diagnosis and management plane , and respecting medico legal aspects.
c.5-Use recent technological tools as computer and internet, to serve his career through searches and assignments.

d-General transferable skills
By the end of the course, student should be able to:
d1 - Present and give scientific presentations.
d2 -Communicate and interact effectively with student & other people and in a small group

d3 - Work as part of a team, recognizing the strengths, weaknesses, needs and sensitivities of others.
d.4- Adopt respect to all colleagues in his medical team
d.5-Apply ethical principles on treating the patients

3-Course contents

Total credit hours 7(5 hours lectures and 2 hours clinical)

- ✓ **The lecture part (5 credit hours) :** is 5 hours weekly for one semester (15 weeks)→ 75 hours
- ✓ **Practical part (2 credit hours):** is 4 hours weekly (15 weeks)→ 60 hours in the form of:

- Clinical data attendance +bedside teaching (2 hour / a week)
- practical skills (2 hours / a week)

Topics	No. of hours	
	Lecture And Tutorial	Practical skills
Respiratory System • Function and structure of the lung • Non Respiratory function of the lung • Mechanics of breathing • Alveolar ventilation • Control of respiration • Pulmonary function tests • Transport of O2 and CO2 in the blood • Respiratory function of blood • Diffusion, chemical reactions and DLCO • Acid- Base balance	5 hours weekly for 7 weeks	4 hours weekly for 7 weeks

Cardiovascular system • Cardiac out put • Arterial Blood pressure • Blood flow to the lung and Pulmonary circulation • Capillary circulation • Pulmonary edema • Hemorrhage and shock	5 hours weekly for 4 weeks	4 hours weekly for 4 weeks
Blood • General component of blood and its function • Blood coagulation	5 hours weekly for 2 weeks	4 hours weekly for 2 weeks
Metabolism • Regulation of body temperature and body reaction.	5 hours weekly for 2 weeks	4 hours weekly for 2 weeks

Detailed curriculum and log book is annexed

- Students should attend at least 75% of lectures, practice, annual meeting, clinical rounds and tutorials.

- Student should work as assistant lecture in the university hospital and shift according to hospital requirement for at least 2 years after registered as assistant lecture and enter the programme.
- Student should be responsible for emergency on his department and dealing with it carefully & successfully by rapid and good decision under supervision of his consultant.
- Student should record all his activities and skills during the training course programmed on his log book signed by the consultant.

Elective activity: 1 credit hour/ 4hours weekly in one semester→ (60 hours)

Scientific activity: 1 credit hour/ 4hours weekly in one semester→ (60 hours)

- It's in attending : seminars, research forum, journal clubs, dissertation defenses, conferences, workshops or training courses

4-Teaching and learning methods

Lectures, seminars, journal clubs, bed side teaching, case presentation, assignments, conference participation observation and hands on practice

5-Student Assessment

5.1…written and oral exam….to assess (a.1,a.2,a.3,a4,a5,a6,b.1,b.3)

5.2… log book… to assess (a4,a5,a6, b.2,b.3,b.4,c.1,c.2,c.3,c.4,c.5,d.1,d.2,d.3,d.4,d.5)

- Assessment schedule

بعد نهاية المقرر يقيم الطالب عن طريق اختبار تحريري وشفوي . يعقد الاختبار فى خلال الأسبوع الأخير من كل فصل دراسى ويرصد فى سجل الطالب(Transcript) جميع درجاته الحاصل عليها فى المقررات وتدخل جميعها فى حساب Cumulative Grade Point Average (CGPA) ولا يحسب للطالب مقرر حصل فيه على تقدير اقل من (C) ضمن الساعات المطلوبة للحصول على الدرجة طبقا للمادة 24 من لائحة الدراسات العليا 2013-2014

6- Weighing of assessments

1. **Written exam (90 mark) and oral exam (60 marks)with total (150mark): at the last week of each semester (the student's grade shouldn't be less than (C) to pass each semester**

2. **Log book: Students should attend at least 75% of lectures, annual meeting, and tutorials.**

7- List of references

7.1 Course notes

7.2 Text book

References (list them):

- Fishman's Pulmonary Diseases and Disorders
- Crofton and Douglas's Respiratory Disease
- Eagan's fundamentals of respiratory care
- Murray & Nadle
- Periodicals of American Journal of Chest Diseases
- Periodicals of European Respiratory Journal
- Periodicals of Chest Medicine

7.4 Periodicals and web sites

8-Other resources/ facilities required for teaching and learning to achieve the above ILOs

The department has regular daily lists for pulmonary function test.
The department has ICU emergency Unit for treatment of respiratory failure patients.
Free Internet access for international data bases is available for all doctorate students through the faculty postgraduate library
The essential text books for this course are available either in department or faculty library

9-we certify that all of the information required to deliver this course is contained in the above specifications and will be implemented

We verify that the above Course and the analysis of students and external evaluator opinions are accurate.

Course coordinator
name……..signature……Date……

Head of department

name……..signature……Date……

Head of quality assurance unit:
name……..signature……Date……

Quality Assurance Unit

TantaUniversity
Faculty of Medicine

Department of Chest

Program Specifications

Chest Doctorate Degree

2016-2017

ChestDoctorate degree, Program Specifications

University: T anta Faculty: Medicine Department: Chest

A- Basic information

1. **Program title: Doctorate of Chest Medicine and Respiratory critical care**
2. **Program Code: CHEST900**
3. **Program coordinator:Prof. HodaMokhtar Bahr (chest disease TantaUniversity)**
4. **programinternal evaluators:Prof. WafaaSaleh El Shimy. (chest disease TantaUniversity)**
5. **program external evaluators: Prof. Ramadan Nafee (chest disease Zagzig University)**
6. **Date of approval: /2017.**
7. **Departments offering the courses of the program:Chest Medicine and Respiratory critical care through chest department.**

B_ professional information

1 – Overall program aims

Our program aims to:

- Develop a high level of knowledge and understanding of respiratory disease
- Develop skills in the assessment of respiratory patients
- Develop skills in managing patients with respiratory disease
- Highlight the importance of preventative medicine and community services
- Develop understanding of service provision
- Develop effective communication skills
- Develop teaching skills
- Develop good critical appraisal skills
- Develop research skills
- Develop appropriate attitudes in a multicultural society
- Develop problem-solving skills.
- Provide a unique experience of how medicine is practiced in specialized chest institute.
- Provide an experience which is intellectually stimulating, enjoyable, and meets students' needs
- Provide an internationally accepted postgraduate qualification
- Stimulate lifelong learning

2 – Intended learning outcomes (ILOs):

a. Knowledge and understanding:

By the end of the program the candidate will be able to:

a1 - Mention the etiology, epidemiology, pathophysiology, genetics, diagnosis, clinical features, investigations and management of respiratory disease

a2 –Mention topics closely related to respiratory medicine e.g. chest radiology, microbiology, allergy, immunology, chest physiotherapy.

a3 –Identify the effect of environment and occupation in respiratory disease.

a4 – Describe the importance of a multidisciplinary approach

a.5- list the principles, methods, ethics, and various tools of medical researches.a.6-Provide an experience which is intellectually stimulating, enjoyable, and meets students' need

a.7 Recognize rights of patients to play a part in the decision-making process of their own management

b. Intellectual skills:

By the end of the program the candidate will be able to:

b1-Plan investigations and treatment appropriately and according to resources.

b2 -Interpret lung function tests, including arterial blood gases, CT chest, HRCT, Pulmonary angiography, Ventilation perfusion scan and sleep study.

b3 - Identify and solve problems.

b4-Argue and discuss medical issue on evidence based manner.

b5- Formulate medical research paper to add new to his specialty.

b6- Evaluate risks in medical practice.

c. Professional and practical skills:

By the end of the program the candidate will be able to:

c1- Demonstrate& perform a pleural tap and biopsy, intercostal chest drain, and bronchoscopy thoracoscopy are performed (not with a patient)

c2- Demonstrate the use of inhalers, a nebuliser and oxygen equipment , ventilators whether invasive & non invasive.

c3- Perform and demonstrate complete pulmonary function, arterial blood gases & sleep study

c4- Write and evaluate a professional medical report related to chest diseases, reflecting case diagnosis and management plane , and respecting medico legal aspects.

c.5-Use recent technological tools as computer and internet, to serve his career through searches and assignments

c.6improve his practical performance and the performance of his colleagues .

d. General and transferable skills:

By the end of the program the candidate will be able to:

d1 - Present and give scientific presentations.

d2 -Communicate and interact effectively with student & other people &patient.

d3 - Work as part of a team, recognizing the strengths, weaknesses, needs and sensitivities of others.d.4-Adopt respect to all colleagues in his medical team

d.5-Apply ethical principles on treating the patients

3- Academic standards adopted

- Academic standards for postgraduates offered for 2009 was adopted as bench mark.
- Postgraduate Prospectus, Imperial College London (available on-line http :// www .imperial .ac.uk/P1212.htm)
- Imperial College Faculty of Medicine (http://www1.imperial.ac.uk/medicine).

4 –Curriculum structure and content:

4-a- Program duration:

at least 48 months***(8 semesters each semester's duration is 15 weeks)*** from registration= 88 credit hours = 240 credit points

4-b- Program structures:

- ✓ **1st part:**

(2 semesters/ 30 weeks) after registering to the degree, for 18 credit hours, its passage isn't a must for Admissionto the thesis or the second part)

- ✓ **Dissertation:**

It's thesis(16 credit hours=32 credit points), student can register for it after 1st semester, dissertation defense can be discussed maximally 2years after registration and at least 2 months before final examination.

- ✓ **2nd part:** (6 semesters= 54 credit hours) the student study courses designed by chest department, each semester is 15 weeks & with ***9 credithours*** include:
- ✓ ***4 credit hours*** weekly / 60 hours for wholeobligatory courses,
- ✓ ***3credit hours*** weekly/ 90 hours for whole clinical & practical training, (achievements are registered in log book)

- ✓ **Scientific activities:**(***1 credit hour*** in each semester/ 15 hours) it is for attending seminars, journal clubs, conferences, workshops , symposia and dissertation defenses(achievements are registered in log book)

- ✓ **1Elective courses in each semester:** (***1 credit hours***/15 hours)

5-Courses included in the program:

5.1 a. Courses titles in first part

1) Physiology of the chest.
2) Pathology of the chest in health and disease.

Department(s) offering the courses: chest department; faculty of medicine Tanta University

5.1.b. Courses titles in second part

- Curriculum (clinical training course and theoretical course) in Chest Medicine and Respiratory critical care
- Department (s) offering the courses: chest Department, faculty of medicine, TantaUniversity.

5.1.Course Title of the first part:

Code	Course Title	Credit hours / course	Program ILOs Covered
CHEST 9001	**Applied physiology of respiratory tract** **Respiratory System** • Function and structure of the lung • Non Respiratory function of the lung • Mechanics of breathing • Alveolar ventilation • Control of respiration • Pulmonary function tests • Transport of O2 and CO2 in the blood • Respiratory function of blood • Diffusion,chemical reactions and DLCO • Acid- Base balance **Cardiovascular system** • Cardiac out put • Arterial Blood pressure • Blood flow to the lung and Pulmonary circulation • Capillary circulation • Pulmonary edema	No. of Credit / taught hours: 7/135 (for 15 weeks) • Lectures + Tutorial: 5 credit hours→ 75 hours • Practical: 2 credit hours → 60 hours	a.1,2,4,5 b.2,3 c.3,4 d.1,2,3

	• Hemorrhage and shock **Blood** • General component of blood and its function • Blood coagulation **Metabolism** Regulation of body temperature and body reaction		
CHEST 9002	**Applied Pathology of different chest disease** **General pathology** • Inflammation • Ischemia , embolism, thrombosis • Infection • Immunity and hypersensitivity • Pathology of benign and malignant tumors **Pathology of respiratory system** • Granulomatous lung diseases • Airway disease • Interstitial diseases • Depositional diseases • Lung neoplasm • Lung injury & repair • Pleural diseases • pulmonary hypertension and corpulmonale	No. of Credit / taught hours: 7/105 (for 15 weeks) • Lectures + Tutorial: 7 credit hours→ 105 hours	a.1,2,3,4,5 b.1,3 c.1,4,5 d.1,2,3

5.2.Course Title of the second part

Code	Course Title	No. Of Hours /Week		Total credit hours/course	Program ILOs Covered
		Lectures	Clinical & practical activity		
CHEST 9003	- Architecture of normal lung -Physiology of lung principles in normal and different situations -Chest imaging -Chest interventions	4 hours weekly/ 4 hours for 15 weeks = 60 hours	3 hours weekly/ 4 hours for 15 weeks = 90 hours	7 credit hours weekly for 15 weeks	a1,a2,a3,a4,a,6,a7 b1,b2,b3,b4,b6 c1,c2,c3,c4,c5,c6 d1,d2,d3,d4,d5.
CHEST 9004	-Disease of the bronchus & Obstructive lung disorders -Suppurative lung syndrome -Disorders of pulmonary circulation	4 hours weekly/ 4 hours for 15 weeks = 60 hours	3 hours weekly/ 4 hours for 15 weeks = 90 hours	7 credit hours weekly for 15 weeks	
CHEST 9005	--Disease of the pleura -Disease of the chest wall -Disease of the mediastinum -Disease of the diaphragm -Tumors of the	4 hours weekly/ 4 hours for 15 weeks = 60 hours	3 hours weekly/ 4 hours for 15 weeks = 90 hours	7 credit hours weekly for 15 weeks	

	lung				
CHEST 9006	Infectious diseases of the lung --HIV	4 hours weekly/ 4 hours for 15 weeks = 60 hours	3 hours weekly/ 4 hours for 15 weeks = 90 hours	7 credit hours weekly for 15 weeks	
CHEST 9007	-Occupational lung diseases -Environmental disorders -Interstitial lung diseases -Depositional lung disease -Granulomatous lung disease -Alveolar disease -Lymphoprolifrative disease	4 hours weekly/ 4 hours for 15 weeks = 60 hours	3 hours weekly/ 4 hours for 15 weeks = 90 hours	7 credit hours weekly for 15 weeks	
CHEST 9008	-Respiratory failure -Management and therapeutic intervention -Surgical aspect of pulmonary medicine -Sleep medicine -Lung in relation to other systems	4 hours weekly/ 4 hours for 15 weeks = 60 hours	3 hours weekly/ 4 hours for 15 weeks = 90 hours	7 credit hours weekly for 15 weeks	

Elective courses				8 ***(1 credit hour*** in each semester/ 15hours)	a5, a6, b3, b4, b5, c5
Scientific activities				8 (***1 credit hours*** /15 hours)	a3, a6, a7, b6, c6, d1, d2, d3, d4, d5

- ***Credit / taught hours (total of the program):***9 credit hours/ 210 taught hours.

program ILOs versus courses matrix																								
ILOS																								
	a							B						C						d				
	1	2	3	4	5	6	7	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5
Pathology	*	*		*	*				*	*						*	*			*	*	*		
Physiology	*	*	*	*	*			*		*				*			*	*		*	*	*		
Chest diseases	*	*	*	*		*	*	*	*	*	*		*	*	*	*	*	*	*	*	*	*	*	*	*
Thesis					*							*						*					*	
Elective courses					*	*				*	*	*						*		*	*	*	*	
Scientific activities			*			*	*						*						*	*	*	*	*	*

Academic Reference Standard (ARS)

program ILOs versus courses ARS																								
ILOs	a							B						C						d				
ARS	1	2	3	4	5	6	7	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5
a1	*	*		*																				
a2					*																			
a3							*																	
a4						*																		
a5			*																					
b1									*															
b2										*														
b3												*												
b4												*												
b5													*											
b6												*												
b7								*																
b8								*																

b9											*												
c1														*	*								
c2																	*						
c3															*	*							
c4																		*					
c5																			*				
d1																				*			*
d2																			*				
d3																							*
d4																					*		
d5																			*				
d6																					*		
d7																			*				

6. Program admission requirements:

Registration, progress requirements, and schedule of course exams& final exam are provided by the faculty through the post graduate guide book according to postgraduate rules (provided as an annex) (paragraphs no. 12,13,14,15,18,19)

7. Regulation for progression and program completion

The general rules and regulations of assessment approved by TantaUniversity.

First part Exam:

The exam is a written and oral exams. Candidates are allowed to sit for the first part exam after at least one year of training & from registration & should pass the first 2 courses and should attend at least 75% of credit hours of each course documented by (Log book)

Dissertation defense:

This should be done at least2 months before entering the final exam, the candidate should have ICDL certificate & TOEFEL score 80 or ILETS score 7 , discussion should be done in public and should be accepted.

Second Part Exam:

The second part exam is a written, oral and clinical exam. Candidates are allowed to sit for the second part exam after passing successfully the first part and after completion of the training period. In addition, each candidate must submit his logbook for final assessment. The logbook requirements must all be completed and signed by the trainers and educational supervisors.

Pre-requisites for entering the second part exam

Candidates should submit the final logbook and a research work on a subject chosen by educational supervisors. The scientific council must accept this project as adequate. Otherwise, the candidate will not be permitted for the second part exam

8-Program assessment and evaluation:

Assessment schedule:

بعد نهاية المقرر يقيم الطالب عن طريق اختبار نهائى . يعقد الاختبار مرتين سنويا فى شهرى ابريل وأكتوبر و أغسطس من كل عام و يحق للطالب التقدم وفق بنود المادة 34 من اللائحة و التى تشترط استكمال 75% logbook . و يتكون الامتحان من الاختبارات الآتية :

1- اختباران تحريريان مدة كل منهما 3 ساعات فى طب الأمراض الصدرية

2- اختباراً تحريرياً مدته ساعة ونصف لحالة يتولى الطالب شرحها وتشخيصها ووصف علاجها

3- اختباراً إكلينيكي فى طب الأمراض الصدرية

4- اختباراً شفوي فى طب الأمراض الصدرية

Only those candidates will be eligible to take final examination that have past 1st part examination (after one year of education of 1ST part course and have completed four years of supervised training programmed). Student who have completed their log book of about 75% attendance may allowed to sit for the exam. The application for the final exam will be forwarded with recommendations of the supervisor and the head of the chest department.

- The written exam composed of three papers:

-The first two papers will include short questions of the chest topics enrolled in the curriculum and MCQ questions will be included of at least in one of them.
-The third paper will be a commentary case report with its discussion
-Only the candidates who passed the written exam called for the clinical exam.
The clinical examination: will composed of one long case and two short cases.

Long Case:

In the long case, the candidate will have a 35 minute session with the patient, a five minute break, and 60 minutes session with at least two examiners. Patients must be inpatients or and will typically have multi system illness.
During a candidate's 60 minutes with the examiners, the focus will be on meeting the defined core competencies of the clinical long case. These are the ability to –

- present a clinical history in a systematic and logical fashion;
- establish the correct facts from a clinical history;
- provide evidence of having undertaken a focused and systematic physical examination;
- establish correct findings on physical examination;
- suggest appropriate investigations in a logical sequence in order to establish or rule out relevant diagnoses;
- put forward a relevant diagnosis (diagnoses) including differential diagnoses and relevant weightings for any such diagnoses;

• put forward an appropriate set of acute management strategies for the specific case being undertaken;
• exhibit an ability to communicate with senior colleagues in a clear, well paced fashion.

During the presentation, candidates should provide a comprehensive history of the presenting complaint, past history, social history, medication history, systematic questioning, findings on physical examination and a summary of active and inactive problems. They should then go on to describe how they would have assessed and managed this patient had they presented to the emergency department. For outpatients, this may require the candidate to speculate on possible ways the patient could present to the emergency department in the future, as there may be no current acute problems to deal with. Following this, the examiners will ask questions on issues of direct relevance to the patient being discussed. This could include interpretation of results and discussion of the current or possible future treatment.

Short Cases

- One short case component begins with a 20 minute session in which the candidate sees one patient with one examiner at least.

All candidates will not see the same patients. The choice of cases is at the discretion of the site organizers and will necessarily reflect the cases available. Typically, a candidate will see respiratory cases.

During the presentation, candidates should perform a structured physical examination of a system or region of the body within the allotted time as directed by the examiners, Elicit the physical signs relevant to the examination undertaken, Report his/her findings to the examiners in a thorough, systematic, professional fashion, Synthesizes the physical signs elicited into relevant diagnostic possibilities, Deal with the patient subject to the Clinical Short Case in a professional and empathetic manner.

The examiners will discuss with the candidate the examination findings (relevant positive and negative findings) diagnosis, differential diagnosis, severity, etiology and complications.

- The other short case will be in the form of 5 stations, each station will be in 20 minutes.

Objectively Structured Clinical Examination (OSCE) Mark List

Exam Components		%	% Obtained
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2	History Taking	20	…….
3	General Examination (Techniques and Questions)	20	…….
4	Chest Examination (Techniques	25	…….

	and Questions)		
5	Investigations (Selection and Interpretations)	15	……..
6	Final Diagnosis or Differential Diagnosis	15	……..
Total Marks (% from 100)		100	……..
Actual Marks (out from…….)			……

Oral examination:

Composed of two panels each one will take about 30 minutes, comprising a minimum of two examiners and traces panel.

The oral two panels assess the candidate's knowledge and understanding of current issues in the respiratory and critical care medicine and the implications of recent developments chest medicine practice. This will include 3 questions by Viva card answers on recent published articles in the common chest medicine/health journals, discussion, and current approaches to standard setting or new and emerging health problems in different Chest branches asrespiratory ICU, bronchoscopy & interventional pulmonology, vascular diseases, infectious diseases and malignant diseases

The tracing exam is composed of 4 plain X-Ray, 3 CT Chest, 2 arterial blood gases, 1 pulmonary function report and 1 Sleep medicine report. The marks will be distributed as 50 % for the comment and 50% for the discussion. The aim of the exam is to test candidates' interpretative abilities are related to pulmonary medicine diagnostic and therapeutic situations.

Weighting of assessment:

Total final exam marks 1500 degree

300 degree for 1st part exam+ 1200 degreefor 2nd part exam

درجة الدكتوراة فى امراض الصدر
Medical Doctorate in Chest Medicine (CHEST 900)

المناهج					الامتحانات						
	المقرر الدراسى	الكود	الساعات المعتمدة	النقاط المعتمدة	عدد الاوراق	تحريرى	شفوى	عملى	اكلينيكى	مجموع الدرجات
الجزء الاول	مقرر علمو عملىفىالفسيولوجياالتطبيقية. مقرر علمو عملىفىالباثولوجياالتطبيقية.	CHEST (9001) CHEST (9002)	7 7	21 21	1 1	90 90	60 60			150 150
	مقرراتاختيارية.		2	6						
	أنشطةعلمية.		2	4						
الرسالة			16	32						
الجزء الثانى	مقرراتعلميةواكلينيكيةفىالأمراضالصدريةوفر وعها.	CHEST (9003) CHEST (9004) CHEST (9005) CHEST (9006) CHEST (9007) CHEST (9008)	7 7 7 7 7 7	21 21 21 21 21 21	1 1 1	260 260 260	120		120 120 120	1200
	مقرراتاختيارية.		6	12						
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المجموع			**88**	**240**		**900**	**240**		**360**	**1500**

Evaluation

- Reports of program external and internal evaluators
- Questioner to students and stick holders
- Reports of faculty internal auditing system

Will be included in the annual program report , and action pane will be structured accordingly

9-we certify that all of the information required to deliver this program is contained in the above specifications and will be implemented

We verify that the above Course and the analysis of students and external evaluator opinions are accurate.

Course coordinator
name……..signature……..Date……..

Head of department

name……..signature……..Date……..

Head of quality assurance unit:
name……..signature……..Date……..

Quality Assurance Unit

TantaUniversity
Faculty of Medicine

Department of Chest

Program Specifications

Chest Doctorate Degree

2016-2017

ChestDoctorate degree, Program Specifications

University: T anta Faculty: Medicine Department: Chest

A- Basic information

1. **Program title: Doctorate of Chest Medicine and Respiratory critical care**
2. **Program Code: CHEST900**
3. **Program coordinator:Prof. HodaMokhtar Bahr (chest disease TantaUniversity)**
4. **programinternal evaluators:Prof. WafaaSaleh El Shimy. (chest disease TantaUniversity)**
5. **program external evaluators: Prof. Ramadan Nafee (chest disease Zagzig University)**
6. **Date of approval: /2017.**
7. **Departments offering the courses of the program:Chest Medicine and Respiratory critical care through chest department.**

B_ professional information

1 – Overall program aims

Our program aims to:

- Develop a high level of knowledge and understanding of respiratory disease
- Develop skills in the assessment of respiratory patients
- Develop skills in managing patients with respiratory disease
- Highlight the importance of preventative medicine and community services
- Develop understanding of service provision
- Develop effective communication skills
- Develop teaching skills
- Develop good critical appraisal skills
- Develop research skills
- Develop appropriate attitudes in a multicultural society
- Develop problem-solving skills.
- Provide a unique experience of how medicine is practiced in specialized chest institute.
- Provide an experience which is intellectually stimulating, enjoyable, and meets students' needs
- Provide an internationally accepted postgraduate qualification
- Stimulate lifelong learning

2 – Intended learning outcomes (ILOs):

a. Knowledge and understanding:

By the end of the program the candidate will be able to:

a1 - Mention the etiology, epidemiology, pathophysiology, genetics, diagnosis, clinical features, investigations and management of respiratory disease

a2 –Mention topics closely related to respiratory medicine e.g. chest radiology, microbiology, allergy, immunology, chest physiotherapy.

a3 –Identify the effect of environment and occupation in respiratory disease.

a4 – Describe the importance of a multidisciplinary approach

a.5- list the principles, methods, ethics, and various tools of medical researches.a.6-Provide an experience which is intellectually stimulating, enjoyable, and meets students' need

a.7 Recognize rights of patients to play a part in the decision-making process of their own management

b. Intellectual skills:

By the end of the program the candidate will be able to:

b1-Plan investigations and treatment appropriately and according to resources.

b2 -Interpret lung function tests, including arterial blood gases, CT chest, HRCT, Pulmonary angiography, Ventilation perfusion scan and sleep study.

b3 - Identify and solve problems.

b4-Argue and discuss medical issue on evidence based manner.

b5- Formulate medical research paper to add new to his specialty.

b6- Evaluate risks in medical practice.

c. Professional and practical skills:

By the end of the program the candidate will be able to:

c1- Demonstrate& perform a pleural tap and biopsy, intercostal chest drain, and bronchoscopy thoracoscopy are performed (not with a patient)

c2- Demonstrate the use of inhalers, a nebuliser and oxygen equipment , ventilators whether invasive & non invasive.

c3- Perform and demonstrate complete pulmonary function, arterial blood gases & sleep study

c4- Write and evaluate a professional medical report related to chest diseases, reflecting case diagnosis and management plane , and respecting medico legal aspects.

c.5-Use recent technological tools as computer and internet, to serve his career through searches and assignments

c.6improve his practical performance and the performance of his colleagues .

d. General and transferable skills:

By the end of the program the candidate will be able to:

d1 - Present and give scientific presentations.

d2 -Communicate and interact effectively with student & other people &patient.

d3 - Work as part of a team, recognizing the strengths, weaknesses, needs and sensitivities of others.d.4-Adopt respect to all colleagues in his medical team

d.5-Apply ethical principles on treating the patients

3- Academic standards adopted

- Academic standards for postgraduates offered for 2009 was adopted as bench mark.
- Postgraduate Prospectus, Imperial College London (available on-line http :// www .imperial .ac.uk/P1212.htm)
- Imperial College Faculty of Medicine (http://www1.imperial.ac.uk/medicine).

4 –Curriculum structure and content:

4-a- Program duration:

at least 48 months***(8 semesters each semester's duration is 15 weeks)*** from registration= 88 credit hours = 240 credit points

4-b- Program structures:

- ✓ **1st part:**

(2 semesters/ 30 weeks) after registering to the degree, for 18 credit hours, its passage isn't a must for Admissionto the thesis or the second part)

- ✓ **Dissertation:**

It's thesis(16 credit hours=32 credit points), student can register for it after 1st semester, dissertation defense can be discussed maximally 2years after registration and at least 2 months before final examination.

- ✓ **2nd part:** (6 semesters= 54 credit hours) the student study courses designed by chest department, each semester is 15 weeks & with ***9 credithours*** include:
- ✓ ***4 credit hours*** weekly / 60 hours for wholeobligatory courses,
- ✓ ***3credit hours*** weekly/ 90 hours for whole clinical & practical training, (achievements are registered in log book)

- ✓ **Scientific activities:**(***1 credit hour*** in each semester/ 15 hours) it is for attending seminars, journal clubs, conferences, workshops , symposia and dissertation defenses(achievements are registered in log book)

- ✓ **1Elective courses in each semester:** (***1 credit hours***/15 hours)

5-Courses included in the program:

5.1 a. Courses titles in first part

1) Physiology of the chest.
2) Pathology of the chest in health and disease.

Department(s) offering the courses: chest department; faculty of medicine Tanta University

5.1.b. Courses titles in second part

- Curriculum (clinical training course and theoretical course) in Chest Medicine and Respiratory critical care
- Department (s) offering the courses: chest Department, faculty of medicine, TantaUniversity.

5.1.Course Title of the first part:

Code	Course Title	Credit hours / course	Program ILOs Covered
CHEST 9001	**Applied physiology of respiratory tract** **Respiratory System** • Function and structure of the lung • Non Respiratory function of the lung • Mechanics of breathing • Alveolar ventilation • Control of respiration • Pulmonary function tests • Transport of O2 and CO2 in the blood • Respiratory function of blood • Diffusion,chemical reactions and DLCO • Acid- Base balance **Cardiovascular system** • Cardiac out put • Arterial Blood pressure • Blood flow to the lung and Pulmonary circulation • Capillary circulation • Pulmonary edema	No. of Credit / taught hours: 7/135 (for 15 weeks) • Lectures + Tutorial: 5 credit hours→ 75 hours • Practical: 2 credit hours → 60 hours	a.1,2,4,5 b.2,3 c.3,4 d.1,2,3

	• Hemorrhage and shock **Blood** • General component of blood and its function • Blood coagulation **Metabolism** Regulation of body temperature and body reaction		
CHEST 9002	**Applied Pathology of different chest disease** **General pathology** • Inflammation • Ischemia , embolism, thrombosis • Infection • Immunity and hypersensitivity • Pathology of benign and malignant tumors **Pathology of respiratory system** • Granulomatous lung diseases • Airway disease • Interstitial diseases • Depositional diseases • Lung neoplasm • Lung injury & repair • Pleural diseases • pulmonary hypertension and corpulmonale	No. of Credit / taught hours: 7/105 (for 15 weeks) • Lectures + Tutorial: 7 credit hours→ 105 hours	a.1,2,3,4,5 b.1,3 c.1,4,5 d.1,2,3

5.2.Course Title of the second part

Code	Course Title	No. Of Hours /Week		Total credit hours/course	Program ILOs Covered
		Lectures	Clinical & practical activity		
CHEST 9003	- Architecture of normal lung -Physiology of lung principles in normal and different situations -Chest imaging -Chest interventions	4 hours weekly/ 4 hours for 15 weeks = 60 hours	3 hours weekly/ 4 hours for 15 weeks = 90 hours	7 credit hours weekly for 15 weeks	a1,a2,a3,a4,a,6,a7 b1,b2,b3,b4,b6 c1,c2,c3,c4,c5,c6 d1,d2,d3,d4,d5.
CHEST 9004	-Disease of the bronchus & Obstructive lung disorders -Suppurative lung syndrome -Disorders of pulmonary circulation	4 hours weekly/ 4 hours for 15 weeks = 60 hours	3 hours weekly/ 4 hours for 15 weeks = 90 hours	7 credit hours weekly for 15 weeks	
CHEST 9005	--Disease of the pleura -Disease of the chest wall -Disease of the mediastinum -Disease of the diaphragm -Tumors of the	4 hours weekly/ 4 hours for 15 weeks = 60 hours	3 hours weekly/ 4 hours for 15 weeks = 90 hours	7 credit hours weekly for 15 weeks	

	lung				
CHEST 9006	Infectious diseases of the lung --HIV	4 hours weekly/ 4 hours for 15 weeks = 60 hours	3 hours weekly/ 4 hours for 15 weeks = 90 hours	7 credit hours weekly for 15 weeks	
CHEST 9007	-Occupational lung diseases -Environmental disorders -Interstitial lung diseases -Depositional lung disease -Granulomatous lung disease -Alveolar disease -Lymphoprolifrative disease	4 hours weekly/ 4 hours for 15 weeks = 60 hours	3 hours weekly/ 4 hours for 15 weeks = 90 hours	7 credit hours weekly for 15 weeks	
CHEST 9008	-Respiratory failure -Management and therapeutic intervention -Surgical aspect of pulmonary medicine -Sleep medicine -Lung in relation to other systems	4 hours weekly/ 4 hours for 15 weeks = 60 hours	3 hours weekly/ 4 hours for 15 weeks = 90 hours	7 credit hours weekly for 15 weeks	

Elective courses				8 ***(1 credit hour*** in each semester/ 15hours)	a5, a6, b3, b4, b5, c5
Scientific activities				8 (***1 credit hours*** /15 hours)	a3, a6, a7, b6, c6, d1, d2, d3, d4, d5

- ***Credit / taught hours (total of the program):***9 credit hours/ 210 taught hours.

program ILOs versus courses matrix																								
ILOS																								
	a							B						C						d				
	1	2	3	4	5	6	7	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5
Pathology	*	*		*	*				*	*						*	*			*	*	*		
Physiology	*	*	*	*	*			*		*				*			*	*		*	*	*		
Chest diseases	*	*	*	*		*	*	*	*	*	*		*	*	*	*	*	*	*	*	*	*	*	*	*
Thesis					*							*						*					*	
Elective courses					*	*				*	*	*						*		*	*	*	*	
Scientific activities			*			*	*						*						*	*	*	*	*	*

Academic Reference Standard (ARS)

program ILOs versus courses ARS																								
ILOs	a							B						C						d				
ARS	1	2	3	4	5	6	7	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5
a1	*	*		*																				
a2					*																			
a3							*																	
a4						*																		
a5			*																					
b1									*															
b2										*														
b3												*												
b4												*												
b5													*											
b6												*												
b7								*																
b8								*																

b9											*												
c1														*	*								
c2																	*						
c3															*	*							
c4																		*					
c5																			*				
d1																				*			*
d2																			*				
d3																							*
d4																					*		
d5																			*				
d6																					*		
d7																			*				

6. Program admission requirements:

Registration, progress requirements, and schedule of course exams& final exam are provided by the faculty through the post graduate guide book according to postgraduate rules (provided as an annex) (paragraphs no. 12,13,14,15,18,19)

7. Regulation for progression and program completion

The general rules and regulations of assessment approved by TantaUniversity.

First part Exam:

The exam is a written and oral exams. Candidates are allowed to sit for the first part exam after at least one year of training & from registration & should pass the first 2 courses and should attend at least 75% of credit hours of each course documented by (Log book)

Dissertation defense:

This should be done at least2 months before entering the final exam, the candidate should have ICDL certificate & TOEFEL score 80 or ILETS score 7 , discussion should be done in public and should be accepted.

Second Part Exam:

The second part exam is a written, oral and clinical exam. Candidates are allowed to sit for the second part exam after passing successfully the first part and after completion of the training period. In addition, each candidate must submit his logbook for final assessment. The logbook requirements must all be completed and signed by the trainers and educational supervisors.

Pre-requisites for entering the second part exam

Candidates should submit the final logbook and a research work on a subject chosen by educational supervisors. The scientific council must accept this project as adequate. Otherwise, the candidate will not be permitted for the second part exam

8-Program assessment and evaluation:

Assessment schedule:

بعد نهاية المقرر يقيم الطالب عن طريق اختبار نهائى . يعقد الاختبار مرتين سنويا فى شهرى ابريل وأكتوبر و أغسطس من كل عام و يحق للطالب التقدم وفق بنود المادة 34 من اللائحة و التى تشترط استكمال 75% logbook . و يتكون الامتحان من الاختبارات الآتية :

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درجة الدكتوراة فى امراض الصدر
Medical Doctorate in Chest Medicine (CHEST 900)

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Course coordinator
name……..signature……..Date……..

Head of department

name……..signature……..Date……..

Head of quality assurance unit:
name……..signature……..Date……..

Quality Assurance Unit

TantaUniversity
Faculty of Medicine

Department of Chest

Program Specifications

Chest Doctorate Degree

2016-2017

ChestDoctorate degree, Program Specifications

University: T anta Faculty: Medicine Department: Chest

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a3 –Identify the effect of environment and occupation in respiratory disease.

a4 – Describe the importance of a multidisciplinary approach

a.5- list the principles, methods, ethics, and various tools of medical researches.a.6-Provide an experience which is intellectually stimulating, enjoyable, and meets students' need

a.7 Recognize rights of patients to play a part in the decision-making process of their own management

b. Intellectual skills:

By the end of the program the candidate will be able to:

b1-Plan investigations and treatment appropriately and according to resources.

b2 -Interpret lung function tests, including arterial blood gases, CT chest, HRCT, Pulmonary angiography, Ventilation perfusion scan and sleep study.

b3 - Identify and solve problems.

b4-Argue and discuss medical issue on evidence based manner.

b5- Formulate medical research paper to add new to his specialty.

b6- Evaluate risks in medical practice.

c. Professional and practical skills:

By the end of the program the candidate will be able to:

c1- Demonstrate& perform a pleural tap and biopsy, intercostal chest drain, and bronchoscopy thoracoscopy are performed (not with a patient)

c2- Demonstrate the use of inhalers, a nebuliser and oxygen equipment , ventilators whether invasive & non invasive.

c3- Perform and demonstrate complete pulmonary function, arterial blood gases & sleep study

c4- Write and evaluate a professional medical report related to chest diseases, reflecting case diagnosis and management plane , and respecting medico legal aspects.

c.5-Use recent technological tools as computer and internet, to serve his career through searches and assignments

c.6improve his practical performance and the performance of his colleagues .

d. General and transferable skills:

By the end of the program the candidate will be able to:

d1 - Present and give scientific presentations.

d2 -Communicate and interact effectively with student & other people &patient.

d3 - Work as part of a team, recognizing the strengths, weaknesses, needs and sensitivities of others.d.4-Adopt respect to all colleagues in his medical team

d.5-Apply ethical principles on treating the patients

3- Academic standards adopted

- Academic standards for postgraduates offered for 2009 was adopted as bench mark.
- Postgraduate Prospectus, Imperial College London (available on-line http :// www .imperial .ac.uk/P1212.htm)
- Imperial College Faculty of Medicine (http://www1.imperial.ac.uk/medicine).

4 –Curriculum structure and content:

4-a- Program duration:

at least 48 months***(8 semesters each semester's duration is 15 weeks)*** from registration= 88 credit hours = 240 credit points

4-b- Program structures:

- ✓ **1st part:**

(2 semesters/ 30 weeks) after registering to the degree, for 18 credit hours, its passage isn't a must for Admissionto the thesis or the second part)

- ✓ **Dissertation:**

It's thesis(16 credit hours=32 credit points), student can register for it after 1st semester, dissertation defense can be discussed maximally 2years after registration and at least 2 months before final examination.

- ✓ **2nd part:** (6 semesters= 54 credit hours) the student study courses designed by chest department, each semester is 15 weeks & with ***9 credithours*** include:
- ✓ ***4 credit hours*** weekly / 60 hours for wholeobligatory courses,
- ✓ ***3credit hours*** weekly/ 90 hours for whole clinical & practical training, (achievements are registered in log book)

- ✓ **Scientific activities:**(***1 credit hour*** in each semester/ 15 hours) it is for attending seminars, journal clubs, conferences, workshops , symposia and dissertation defenses(achievements are registered in log book)

- ✓ **1Elective courses in each semester:** (***1 credit hours***/15 hours)

5-Courses included in the program:

5.1 a. Courses titles in first part

1) Physiology of the chest: 6 credit hours
2) Pathology of the chest in health and disease: 6 credit hours

Department(s) offering the courses: physiology, pathology departments; faculty of medicineTantaUniversity

5.1.b. Courses titles in second part

- Curriculum (clinical training course and theoretical course) in Chest Medicine and Respiratory critical care
- Department (s) offering the courses: chest Department, faculty of medicine, TantaUniversity.

5.1.Course Title of the first part:

Code	Course Title	Credit hours / course	Program ILOs Covered
CHEST 9001	**Applied physiology of respiratory tract** • Non Respiratory function of the lung • Physiology of ventilation • Pulmonary circulation • Control of respiration • Pulmonary function tests • Acid- Base balance and blood gases • Shock • Capillary circulation and edema	7 credit hours	a.1.b3
CHEST 9002	**Applied Pathology of different chestdisease** • Inflammation • Ischemia , embolism, thrombosis • Infection • Granulomatous lung diseases • Airway disease • Interstitial diseases • Depositional diseases • Lung neoplasm	7credit hours	a.1,b3

5.2.Course Title of the second part

Code	Course Title	No. Of Hours /Week		Total credit hours/course	Program ILOs Covered
		Lectures	Clinical & practical activity		
CHEST 9003	- Architecture of normal lung -Physiology of lung principles in normal and different situations -Chest imaging -Chest interventions	4 hours weekly/ 4 hours for 15 weeks = 60 hours	3 hours weekly/ 4 hours for 15 weeks = 90 hours	7 credit hours weekly for 15 weeks	a1,a2,a3,a4,a,6,a7 b1,b2,b3,b4,b6 c1,c2,c3,c4,c5,c6 d1,d2,d3,d4,d5.
CHEST 9004	-Disease of the bronchus & Obstructive lung disorders -Suppurative lung syndrome -Disorders of pulmonary circulation	4 hours weekly/ 4 hours for 15 weeks = 60 hours	3 hours weekly/ 4 hours for 15 weeks = 90 hours	7 credit hours weekly for 15 weeks	
CHEST 9005	--Disease of the pleura -Disease of the chest wall -Disease of the mediastinum -Disease of the diaphragm -Tumors of the	4 hours weekly/ 4 hours for 15 weeks = 60 hours	3 hours weekly/ 4 hours for 15 weeks = 90 hours	7 credit hours weekly for 15 weeks	

	lung				
CHEST 9006	Infectious diseases of the lung --HIV	4 hours weekly/ 4 hours for 15 weeks = 60 hours	3 hours weekly/ 4 hours for 15 weeks = 90 hours	7 credit hours weekly for 15 weeks	
CHEST 9007	-Occupational lung diseases -Environmental disorders -Interstitial lung diseases -Depositional lung disease -Granulomatous lung disease -Alveolar disease -Lymphoprolifrative disease	4 hours weekly/ 4 hours for 15 weeks = 60 hours	3 hours weekly/ 4 hours for 15 weeks = 90 hours	7 credit hours weekly for 15 weeks	
CHEST 9008	-Respiratory failure -Management and therapeutic intervention -Surgical aspect of pulmonary medicine -Sleep medicine -Lung in relation to other systems	4 hours weekly/ 4 hours for 15 weeks = 60 hours	3 hours weekly/ 4 hours for 15 weeks = 90 hours	7 credit hours weekly for 15 weeks	

Elective courses				8 ***(1 credit hour*** in each semester/ 15hours)	a5, a6, b3, b4, b5, c5
Scientific activities				8 (***1 credit hours*** /15 hours)	a3, a6, a7, b6, c6, d1, d2, d3, d4, d5

- ***Credit / taught hours (total of the program):***9 credit hours/ 210 taught hours.

program ILOs versus courses matrix																								
ILOS																								
	a							B						C						d				
	1	2	3	4	5	6	7	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5
Pathology	*									*														
physiology	*									*														
Chest diseases	*	*	*	*		*	*	*	*	*	*		*	*	*	*	*	*	*	*	*	*	*	*	*
thesis					*							*						*					*	
Elective courses					*	*				*	*	*						*						
Scientific activities			*			*	*						*						*	*	*	*	*	*

Academic Reference Standard (ARS)

program ILOs versus courses ARS																								
ILOs	a							B						C						d				
ARS	1	2	3	4	5	6	7	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5
a1	*	*		*																				
a2					*																			
a3							*																	
a4						*																		
a5			*																					
b1									*															
b2										*														
b3												*												
b4												*												
b5													*											
b6												*												
b7								*																
b8								*																

b9											*												
c1														*	*								
c2																	*						
c3															*	*							
c4																		*					
c5																			*				
d1																				*			*
d2																			*				
d3																							*
d4																					*		
d5																			*				
d6																					*		
d7																			*				

6. Program admission requirements:

Registration, progress requirements, and schedule of course exams& final exam are provided by the faculty through the post graduate guide book according to postgraduate rules (provided as an annex) (paragraphs no. 12,13,14,15,18,19)

7. Regulation for progression and program completion

The general rules and regulations of assessment approved by TantaUniversity.

First part Exam:

The exam is a written, practical and oral exam. Candidates are allowed to sit for the first part exam after at least one year of training & from registration & should pass the first 2 courses and should attend at least 75% of credit hours of each course documented by (Log book)

Dissertation defense:

This should be done at least2 months before entering the final exam, the candidate should have ICDL certificate & TOEFEL score 80 or ILETS score 7 , discussion should be done in public and should be accepted.

Second Part Exam:

The second part exam is a written, oral and clinical exam. Candidates are allowed to sit for the second part exam after passing successfully the first part and after completion of the training period. In addition, each candidate must submit his logbook for final assessment. The logbook requirements must all be completed and signed by the trainers and educational supervisors.

Pre-requisites for entering the second part exam

Candidates should submit the final logbook and a research work on a subject chosen by educational supervisors. The scientific council must accept this project as adequate. Otherwise, the candidate will not be permitted for the second part exam

8-Program assessment and evaluation:

Assessment schedule:

بعد نهاية المقرر يقيم الطالب عن طريق اختبار نهائى . يعقد الاختبار مرتين سنويا فى شهرى ابريل و أكتوبر من كل عام و يحق للطالب التقدم وفق بنود المادة 34 من اللائحة و التى تشترط استكمال logbook 75% . و يتكون الامتحان من الاختبارات الآتية :

1- اختباران تحريريان مدة كل منهما 3 ساعات فى طب الأمراض الصدرية

2- اختباراً تحريرياً مدته ساعة ونصف لحالة يتولى الطالب شرحها وتشخيصها ووصف علاجها

3- اختباراً إكلينيكي فى طب الأمراض الصدرية

4- اختباراً شفوي فى طب الأمراض الصدرية

Only those candidates will be eligible to take final examination that have past 1st part examination (after one year of education of 1ST part course and have completed four years of supervised training programmed). Student who have completed their log book of about 75% attendance may allowed to sit for the exam. The application for the final exam will be forwarded with recommendations of the supervisor and the head of the chest department.

- The written exam composed of three papers:

-The first two papers will include short questions of the chest topics enrolled in the curriculum and MCQ questions will be included of at least in one of them.
-The third paper will be a commentary case report with its discussion
-Only the candidates who passed the written exam called for the clinical exam. The clinical examination: will composed of one long case and two short cases.

Long Case:

In the long case, the candidate will have a 35 minute session with the patient, a five minute break, and 60 minutes session with at least two examiners. Patients must be inpatients or and will typically have multi system illness.
During a candidate's 60 minutes with the examiners, the focus will be on meeting the defined core competencies of the clinical long case. These are the ability to –

- present a clinical history in a systematic and logical fashion;
- establish the correct facts from a clinical history;
- provide evidence of having undertaken a focused and systematic physical examination;
- establish correct findings on physical examination;
- suggest appropriate investigations in a logical sequence in order to establish or rule out relevant diagnoses;
- put forward a relevant diagnosis (diagnoses) including differential diagnoses and relevant weightings for any such diagnoses;

• put forward an appropriate set of acute management strategies for the specific case being undertaken;
• exhibit an ability to communicate with senior colleagues in a clear, well paced fashion.

During the presentation, candidates should provide a comprehensive history of the presenting complaint, past history, social history, medication history, systematic questioning, findings on physical examination and a summary of active and inactive problems. They should then go on to describe how they would have assessed and managed this patient had they presented to the emergency department. For outpatients, this may require the candidate to speculate on possible ways the patient could present to the emergency department in the future, as there may be no current acute problems to deal with. Following this, the examiners will ask questions on issues of direct relevance to the patient being discussed. This could include interpretation of results and discussion of the current or possible future treatment.

Short Cases

- One short case component begins with a 20 minute session in which the candidate sees one patient with one examiner at least.

All candidates will not see the same patients. The choice of cases is at the discretion of the site organizers and will necessarily reflect the cases available. Typically, a candidate will see respiratory cases.

During the presentation, candidates should perform a structured physical examination of a system or region of the body within the allotted time as directed by the examiners, Elicit the physical signs relevant to the examination undertaken, Report his/her findings to the examiners in a thorough, systematic, professional fashion, Synthesizes the physical signs elicited into relevant diagnostic possibilities, Deal with the patient subject to the Clinical Short Case in a professional and empathetic manner.

The examiners will discuss with the candidate the examination findings (relevant positive and negative findings) diagnosis, differential diagnosis, severity, etiology and complications.

- The other short case will be in the form of 5 stations, each station will be in 20 minutes.

Objectively Structured Clinical Examination (OSCE) Mark List

Exam Components		%	% Obtained
1	Ethics and Attitude	5	…….
2	History Taking	20	…….
3	General Examination (Techniques and Questions)	20	…….
4	Chest Examination (Techniques	25	…….

	and Questions)		
5	Investigations (Selection and Interpretations)	15	……..
6	Final Diagnosis or Differential Diagnosis	15	……..
Total Marks (% from 100)		100	……..
Actual Marks (out from…….)			……

Oral examination:

Composed of two panels each one will take about 30 minutes, comprising a minimum of two examiners and traces panel.

The oral two panels assess the candidate's knowledge and understanding of current issues in the respiratory and critical care medicine and the implications of recent developments chest medicine practice. This will include 3 questions by Viva card answers on recent published articles in the common chest medicine/health journals, discussion, and current approaches to standard setting or new and emerging health problems in different Chest branches asrespiratory ICU, bronchoscopy & interventional pulmonology, vascular diseases, infectious diseases and malignant diseases

The tracing exam is composed of 4 plain X-Ray, 3 CT Chest, 2 arterial blood gases, 1 pulmonary function report and 1 Sleep medicine report. The marks will be distributed as 50 % for the comment and 50% for the discussion. The aim of the exam is to test candidates' interpretative abilities are related to pulmonary medicine diagnostic and therapeutic situations.

Weighting of assessment:

Total final exam marks 1500 degree

300 degree for 1st part exam+ 1200 degreefor 2nd part exam

درجة الدكتوراة فى امراض الصدر
Medical Doctorate in Chest Medicine (CHEST 900)

المناهج					الامتحانات						
	المقرر الدراسى	الكود	الساعات المعتمدة	النقاط المعتمدة	عدد الاوراق	تحريرى	شفوى	ع مل ى	اكلينيك ى	مجموع الدرجات
الجزء الاول	مقرر علم سو علم نفس الفسيولوجيا التطبيقية. مقرر علم سو علم نفس الباثولوجيا التطبيقية.	CHEST (9001) CHEST (9002)	7 7	21 21	1 1	150 150				150 150
	مقررا اختيارية.		2	6						
	أنشطة علمية.		2	4						
الرسالة				32						
الجزء الثانى	مقررات علمية واكلينيكية فى الأمراض الصدرية وفروعها.	CHEST (9003) CHEST (9004) CHEST (9005) CHEST (9006) CHEST (9007) CHEST (9008)	7 7 7 7 7 7	21 21 21 21 21 21	1 1 1	260 260 260	120		120 120 120	1200
	مقررا اختيارية.		6	12						
	أنشطة علمية.		6	12						
المجموع			**88**	**240**		**900**	**240**		**360**	**1500**

Evaluation

- Reports of program external and internal evaluators
- Questioner to students and stick holders
- Reports of faculty internal auditing system

Will be included in the annual program report , and action pane will be structured accordingly

9-we certify that all of the information required to deliver this program is contained in the above specifications and will be implemented

We verify that the above Course and the analysis of students and external evaluator opinions are accurate.

Course coordinator
name……..signature……..Date……

Head of department

name……..signature……..Date……

Head of quality assurance unit:
name……..signature……..Date……