08

**Fall**

|  |  |
| --- | --- |
|  |  |
| **Quality Assurance Unit** | **Tanta University**  **Faculty of Medicine** |

****

**Medicine and Surgery Bachelor Program – Credit Point**

**MSBP -CP**

**Course Specifications**

**[Principles of Chest Diseases]**

**Semester 7- Medicine 2**

**2023 -2024**

**Code: MED2 4102-CHEST**

**1- Administrative Information**

1. **Program title: Medicine and Surgery Bachelor Program-Credit Point (MSBP-CP)**
2. **Course title: Chest Diseases**
3. **Course code: MED2 4102-CHEST**
4. **Course coordinator: Prof. Ayman Hassan Abdel Zaher**
5. **Program internal evaluator : Prof. Hoda Bahr, professor of chest diseases, Tanta university**
6. **Program external evaluator: Prof. Hanan Elshahat, professor of chest diseases, Zagazig university**
7. **Department(s) offering the course: Chest Department**
8. **Academic year: 2023-2024**
9. **Level: Level four – Semester seven – Medicine 2**
10. **Date of approval by Department Council : 5/9/2023**
11. **Date of approval by:**

* **Council of the Faculty of Medicine, Tanta University:**

**12. Credit points: 2**

**13. Taught hours: Clinical course covered in one week**

**• Online lectures: 8 hours / week**

**• Clinical: 16 hours/week. Given as 3 hours for the clinical teaching round 4 days/week and 1 hours for clinical case discussion 4 times /week).**

* **Problem based learning: Two hourly attendance sessions twice per week**

**• Total: 50 hours.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Credit points** | **%** | **Online lectures** | **Practical/clinical** | **PBL** | **Assignment** | **Exam** | **Taught hrs.** |
| **2 Credit points** | **Contact hours 70%** | **8 online on Microsoft team** | **12** | **4** | **4**  **Clinical case discussion** | **7** | **35** |
| **Non contact hours 30%** |  |  | **6** | **9**  **Material collection and gain** |  | **15** |

**2- Professional Information**

**Academic standards adopted in this course is designed according to NARS 2017**

**3 – Course Description**

* **Pulmonary Disease ... Enable the student to acquire and demonstrate knowledge and skills necessary for achievement of high standards of medical practice including lifelong continuous medical education (CME).**

**4– Overall Course Aim/Objectives**

* **Provide students with knowledge and understanding of pulmonary health, and of diseases, its prevention and management, and to cover chest emergencies.**
* **Enable the students to acquire and become efficient in basic clinical skills as history taking, physical and mental examination, interpreting diagnostic investigation and sharing treatment plan.**
* **Correlate basic knowledge of respiratory system to structural and functional changes in various respiratory diseases.**
* **Differentiate common respiratory diseases and related emergencies as regard etiology, pathogenesis, pathophysiology, clinical picture, diagnosis and proper treatment.**
* **Apply complete respiratory consultation including history taking, clinical examination (generally and locally) to minimize differential diagnosis and choose suitable investigation and treatment.**
* **Describe and differentiate radiological features common respiratory diseases.**
* **Interpret simple tests like tuberculin test and respiratory function tests.**
* **Classify, differentiate and select the main lines of treatment in common respiratory problems including; nutritional, pharmacological, interventional, psychological and physiotherapy with formulation of therapeutic plans.**
* **Gain awareness about common community based problems and formulate possible preventive measures and solutions.**
* **Promote graduates to participate in community activities for prevention of avoidable respiratory diseases.**
* **Enable the student to acquire and demonstrate attitudes necessary for achievement of high standards of medical practice including lifelong continuous medical education (CME).**
* **Help graduates gain skills of professional communication with colleagues, health care team, patient and his family.**

**5 - Intended learning outcomes (ILOs)**

***By the end of the course, the graduate should be able to:***

**Competency Area I: The graduate as a health care provider**

* 1. **Take and record a structured, patient centered history.**
     1. Recognize necessary English and Arabic language medical terminology for appropriate learning and communication
     2. Apply and document a complete or focused chest medical history in the outpatient, inpatient or emergency settings
  2. **Adopt an empathic and holistic approach to the patients and their problems.**

1.2.1. Perform a complete or focused general examination and local chest examination including; inspection, palpation, percussion and auscultation, in acute and chronic illness appropriate to the age, sex. In ethical Manner

**1.4. Perform appropriately timed full physical examination of patients appropriate to the age, gender, and clinical presentation of the patient.**

1.4.1. Construct patient’s symptoms and physical signs in terms of anatomic, pathologic and functional diagnostic significances. Analysis of main six cardinal chest symptoms; cough, expectoration, hemoptysis, dyspnea, wheeze and chest pain.

1.4.2. Distinguishing the etiology, clinical symptoms, signs, investigations, prognosis, complications and management of different types of lung infections

1.4.3. Identify etiology, clinical features and complications of different types of suppurative lung diseases

1.4.4. Discuss etiology, pathogenesis, clinical categories, investigations and treatment guidelines of tuberculosis.

1.4.5. Distinguish the different causes, pathology, pathogenesis, clinical presentation and complications of different pleural diseases

1.4.6. Design a differential diagnosis plan for patients with obstructive air way disease with reference to different phenotypes of COPD and bronchial asthma. Recognize definition and different causes of wheeze

1.4.7. Describe main differences between asthma and COPD

1.4.8. Identify classification, etiology, clinical presentation and complications of interstitial lung diseases

1.4.9. Identify etiology, clinical picture and complications of pulmonary vascular diseases

1.4.10. Discuss classification, various clinical presentations and complications of bronchial tumors

1.4.11. Identify classification, causes and clinical presentation of respiratory failure and adult respiratory distress syndrome

1.4.12. Identify definition , types, risk factors, clinical manifestations and diagnosis of sleep apnea syndrome

**1.6. Select the appropriate investigations and interpret their results taking into consideration cost/ effectiveness factors.**

1.6.1. Point out the most appropriate and cost effective diagnostic laboratory investigations (hematological Biochemical, Pathological and the other types of investigations for different chest diseases to reach the proper final diagnosis within short time

1.6.2. Investigations of :Pleural effusion, Empyema, Pyopneumothorax and Pleural tumors

1.6.3. Identify various investigations used for diagnosis of respiratory tract infections and suppurative lung diseases

1.6.4. Recognize investigations of a case of tuberculosis and interpretation of radiological manifestations of tuberculosis, results of investigations of tuberculosis

1.6.5. The proper selection of various investigations used for the diagnosis of different suppurative lung diseases

1.6.6. Identify investigations for assessment and diagnosis of different types of interstitial lung diseases

1.6.7. Interpret spirometry for obstructive and restrictive disorders

1.6.8. Recognize appropriate investigations for diagnosis of pulmonary vascular diseases

1.6.9. Identify and interpret investigations of different types if bronchial and mediastinal tumors

**1.7. Recognize and respond to the complexity, uncertainty, and ambiguity inherent in medical practice.**

1.7.1. Classify factors that place individuals at risk for disease or injury, to determine strategies for appropriate response

1.7.2. Recognize risk factors for common chest diseases as pulmonary embolism, lung cancer, COPD and sleep apnea syndrome.

**1.8. Apply knowledge of the clinical and biomedical sciences relevant to the clinical problem at hand.**

1.8.1. Express systemic thinking and personal judgment in clinical problem solving (PBL: Problem Based Learning)

1.8.2. Construct patient’s symptoms and physical signs in terms of anatomic, functional, pathologic and diagnostic significances.

**1.9. Retrieve, analyze, and evaluate relevant and current data from literature, using information technologies and library resources, in order to help solve a clinical problem based on evidence (EBM)**

1.9.1. Interpret, analyze and evaluate the clinical findings and information limitations in order to Recognize, define and prioritize management plans for various clinical problems.

1.9.2. Identify the proper chest imaging modalities.

1.9.3. Know the basics of different chest imaging modalities.

1.9.4. Identify the normal chest imaging findings.

1.9.5. Properly describe the common pathological chest appearances (e.g. infection, tumors and trauma) in both X-ray and CT studies.

1.9.6. Link the relevant clinical data to the imaging findings

1.9.7. Search for relevant information which helps in solving clinical problems (Web-based learning, Self-learning and PBL).

**1.10. Integrate the results of history, physical and laboratory test findings into a meaningful diagnostic formulation.**

1.10.1. Integrate the results of history, physical and laboratory test findings into a meaningful diagnostic formulation

1.10.2. Analyze complaint of the patient and interpret the present, past and family history into provisional diagnosis.

1.10.3. Integrate items of chest symptoms and signs with pathological changes in the lung and airways into reasonable final diagnosis.

1.10.4. Recognize the correct methods of examination and their significance in approach to the disease.

**1.13. Establish patient-centered management plans in partnership with the patient, using Evidence Based Medicine in management decisions.**

1.13.1. Formulate a management plan for common chest diseases and acute emergencies

1.13.2. Main lines of treatment of different pleural disorders and tumors

1.13.3. Treatment options for respiratory tract infections and suppurative lung diseases

1.13.4. Review various management plans for tuberculosis and decision about the prognosis of tuberculosis in specific patients. Formulate the chemotherapy for tuberculosis

1.13.5. Formulate a proper management plan for obstructive airway diseases including both pharmacological and non-pharmacological therapy

1.13.6. Management plan of various interstitial lung diseases

1.13.7. Formulate management plan for pulmonary vascular diseases including medical, surgical and interventional procedures.

1.13.8. Identify various treatment options for bronchial and mediastinal tumors including pharmacological and surgical modalities

1.13.9. Formulate management plan for adult patients with acute respiratory distress syndrome

1.13.10. Recognize different lines of treatment of sleep apnea syndrome

**Competency Area II: The graduate as a health promoter**

* 1. **Identify the basic determinants of health and principles of health improvement.**

2.1.1. Define necessary information about the basic principles of health promotion, prevention and control of common chest diseases as tuberculosis, bacterial and viral upper and lower respiratory tract infections

**2.4 Identify the major health risks in his/her community, including demographic, occupational and environmental risks; endemic diseases, and prevalent chronic diseases.**

2.4.1. Identify the Egyptian national health care system including principle, organization and different approaches to health care services and their role in improving medical practice

2.4.2. Describe the role of smoking cessation and pollution avoidance as preventive measures for COPD, bronchial asthma, occupational lung diseases and lung cancer

**2.5 Describe the principles of disease prevention, and empower communities, specific groups or individuals by raising their awareness and building their capacity.**

**2.6. Recognize the epidemiology of common diseases within his/her community, and apply the systematic approaches useful in reducing the incidence and prevalence of those diseases.**

2.6.1. Identify the epidemiological indices, evolution, demography and biological variability of tuberculosis.

**Competency Area III: The graduate as a professional**

**3.1. Exhibit appropriate professional behaviors and relationships in all aspects of practice, demonstrating honesty, integrity, commitment, compassion, and respect.**

3.1.1. Adopt an empathic and holistic approach to the patients and their problems and provide care to patients who are unable to pay

3.1.2. Respect patient's rights involving them or their caretakers in management decision

3.1.3. Communicate clearly, sensitively and effectively with patients and their relatives and also, colleagues (from a variety of health and social care professions)

**3.3. Respect the different cultural beliefs and values in the community they serve.**

**3.5. Ensure confidentiality and privacy of patients’ information.**

**Competency Area IV: The graduate as a scholar and scientist**

**4.5 Identify various causes (genetic, developmental, metabolic, toxic, microbiologic, autoimmune, neoplastic, degenerative, and traumatic) of illness/disease and explain the ways in which they operate on the body (pathogenesis).**

4.5.1. Identify the natural history of common chest illnesses with understanding of the importance of risk factors, surveillance and screening for prevention and early detection of common disease and health problems

4.5.2. Describe the principles of management of common and life threatening illnesses including medical, surgical intervention (invasive and noninvasive) pain relief and palliative care

4.5.3. Recognize the etiology, pathogenesis, and complications of various lung infections caused by different microorganisms (bacterial, viral, fungal).

4.5.4. Distinguish between different causes of obstructive air way diseases, COPD and bronchial asthma.

**4.7 Describe drug actions: therapeutics and pharmacokinetics; side effects and interactions, including multiple treatments, long term conditions and non-prescribed medication; and effects on the population.**

4.7.1. Define pharmacological and non-pharmacological therapies including: drug effects/pharmacokinetics, dosage, drug-drug interactions and adverse reactions.

4.7.2. Recognize pharmacological principles for treatment of pneumonia, bronchial asthma & COPD.

4.7.3. Discuss pharmacological aspects of some important anti-asthmatic and anti-tuberculous drugs.

**4.8 Demonstrate basic sciences specific practical skills and procedures relevant to future practice, recognizing their scientific basis, and interpret common diagnostic modalities, including: imaging, electrocardiograms, laboratory assays, pathologic studies, and functional assessment tests.**

4.8.1. Interpret some clinical parameters such as pulmonary functions tests for diagnosis of obstructive and restrictive lung diseases.

4.8.2. Properly describe and interpret the common pathological chest appearances (e.g. infection, tumors and trauma) in both X-ray and CT studies.

**Competency Area V: The graduate as a member of the health team and the health care system**

**5.1 Recognize the important role played by other health care professions in patients’ management.**

**5.2 Respect colleagues and other health care professionals and work cooperatively with them, negotiating overlapping and shared responsibilities and engaging in shared decision-making for effective patient management (Problem Based Learning PBL)**

**5.3 Implement strategies to promote understanding, manage differences, and resolve conflicts in a manner that supports collaborative work.**

5.3.1 Implement collaborative teamwork during small group teaching (PBL).

**5.4 Apply leadership skills to enhance team functioning, the learning environment, and/or the health care delivery system (PBL).**

**Competency Area VI: The graduate as a lifelong learner and researcher**

**6.3 Identify opportunities and use various resources for learning.**

6.3.1 Interacts positively with colleagues, peers and professors on web pages.

6.3.2 Use various resources in collecting information (Web-based learning, Media).

**6.4 Engage in inter-professional activities and collaborative learning to continuously improve personal practice and contribute to collective improvements in practice (Problem Based Learning PBL).**

**6.6 Effectively manage learning time and resources and set priorities (PBL and Assignment)**

6.6.1 Achieve and perform the required duties from him on time (assignments).

**6 – Course/ Course Contents**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Course** | **Interactive lecture** | **Web based L** | **Patient**  **Bedside L** | **(Media)** | **Small group teaching**  **CBL&PBL)** | | **Portfolio** |
| **Chest diseases** | **√** | **√** | **√** | **√** | **√** | **√** |  |

| **Topic** | **lectures**  **(hour)** | **Department** | **Practical /small groups (PBL)**  **(20 hrs. / week)** | **Department** |
| --- | --- | --- | --- | --- |
| **Respiratory** | **8 hrs** | **Chest** | **4 hours/day** | **chest Department** |

| **Topics** | **No of hours** | | | | | | | **ILOs covered** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Lectures**  **(online)** | **Clinical case discussion** | **Media** | **BPL-** | **Web based learning** | **Assig** | **Total**  **Hours** |
| **Respiratory failure and adult respiratory distress syndrome (ARDS)** | **40m** |  |  |  |  |  |  | **1.4.11, 1.6.1, 1.13.1, 1.13.9, 3.1, 4.5.1, 4.5.2, 4.7.1** |
| **Obstructive sleep apnea** | **40m** |  |  |  |  |  |  | **1.4.12, 1.6.1, 1.7.1, 1.7.2, 1.13.1, 1.13.10, 3.1, 4.5.1, 4.5.2, 4.7.1** |
| **Pneumonia** | **40m** |  |  |  |  |  |  | **1.4.2, 1.6.1, 1.9.5, 1.13.1, 1.13.3, 2.1.1, 2.4.1, 2.5, 3.1, 4.5.1, 4.5.2, 4.5.3, 4.7.1, 4.7.2, 4.8.2** |
| **Pulmonary tuberculosis** | **40m** |  |  |  |  |  |  | **1.4.2, 1.4.4, 1.6.1, 1.9.5, 1.13.1, 1.13.4, 2.1.1, 2.4.1, 2.4.2, 2.5, 2.6.1, 3.1, 4.5.1, 4.5.2, 4.5.3, 4.7.1, 4.7.3, 4.8.2, 5.1** |
| **Suppurative lung syndrome** | **40m** |  |  |  |  |  |  | **1.4.3, 1.6.1, 1.6.3, 1.6.5, 1.9.5, 1.13.1, 1.13.3, 3.1, 4.5.1, 4.5.2, 4.7.1, 4.8.2** |
| **Bronchogenic carcinoma and mediastinal syndrome** | **40m** |  |  |  |  |  |  | **1.4.10, 1.6.1, 1.6.9, 1.7.1, 1.7.2, 1.9.5, 1.13.1, 1.13.8, 2.4.2, 2.5, 3.1, 4.5.1, 4.5.2, 4.7.1, 4.8.2** |
| **Diffuse parenchymal lung disease (DPLD)** | **40m** |  |  |  |  |  |  | **1.4.8, 1.6.1, 1.6.6, 1.6.7, 1.9.5, 1.13.1, 1.13.6, 2.4.2, 3.1, 4.5.1, 4.5.2, 4.7.1, 4.8.1, 4.8.2, 5.1** |
| **Pulmonary embolism** | **40m** |  |  |  |  |  |  | **1.4.9, 1.6.1, 1.6.8, 1.7.1, 1.7.2, 1.9.5, 1.13.1, 1.13.7, 3.1, 4.5.1, 4.5.2, 4.7.1, 4.8.2** |
| **Chronic obstructive pulmonary disease (COPD)** | **40m** |  |  |  |  |  |  | **1.4.6, 1.4.7, 1.6.1, 1.6.7, 1.7.1, 1.7.2, 1.9.5, 1.13.1, 1.13.5, 2.4.2, 3.1, 4.5.1, 4.5.2, 4.5.4, 4.7.1, 4.7.2, 4.7.3, 4.8.1** |
| **Bronchial asthma** | **40m** |  |  |  |  |  |  | **1.4.6, 1.4.7, 1.6.1, 1.6.7, 1.7.1, 1.7.2, 1.9.5, 1.13.1, 1.13.5, 2.4.2, 3.1, 4.5.1, 4.5.2, 4.5.4, 4.7.1, 4.7.2, 4.7.3, 4.8.1** |
| **Pulmonary function tests** | **40m** |  |  |  |  |  |  | **1.6.1, 1.6.7, 3.1, 3.3, 3.5, 4.8.1** |
| **Pleural diseases** | **40m** |  |  |  |  |  |  | **1.4.5, 1.6.1, 1.6.2, 1.9.5, 1.13.1, 1.13.2, 3.1, 4.5.1, 4.5.2, 4.7.1, 4.8.2** |
| **Practical:** |  |  |  |  |  |  | **12h** |  |
| **History and symptomatology** |  |  |  |  |  |  | **4h** | **1.1.1, 1.1.2, 1.4.1, 1.8.1, 1.8.2, 1.10.1, 1.10.2, 1.10.3, 3.1, 3.3, 3.5, 4.5.1** |
| **General examination** |  |  |  |  |  |  | **2h** | **1.2.1, 1.8.2, 1.10.3, 1.10.4, 3.1, 3.3, 3.5** |
| **Local examination:**  **Inspection**  **Palpation**  **Percussion**  **Auscultation** |  |  |  |  |  |  | **6h** | **1.2.1, 1.8.2, 1.10.1, 1.10.3, 1.10.4, 3.1, 3.3,3.5** |
| **Small group teaching for all topics** |  | **4h** |  | **4+6h** |  |  |  | **1.6.1, 1.8.1, 1.8.2, 1.9.1, 1.9.7, 1.10.1, 1.10.2, 1.10.3, 3.1.3, 4.5.1, 5.2, 5.3.1, 5.4, 6.3.1, 6.3.2, 6.4** |
| **Material collection and gain** |  |  | **4.5h** |  | **4.5h** |  |  | **1.8, 1.9.7, 1.13, 2.6, 4.5, 6.3.1, 6.3.2, 6.4** |
| **Exam Practical OSCE** |  |  |  |  |  |  | **7h** |  |
|  |  |  |  |  |  |  |  |  |

**Topics to be covered**

## **Chest**

**1. Pleural diseases:**

• Pleural effusion

• Empyema

• Pyopneumothorax

• Pleural tumors

**2. Pulmonary infection:**

**•** Bacterial pneumonia

• Viral pneumonia

• Pulmonary tuberculosis

**3. Suppurative lung diseases:**

• Lung Abscess

• Bronchiectasis

• Cystic fibrosis

**4. Obstructive lung diseases:**

**•** Bronchial asthma

• Chronic Obstructive Lung Diseases

**5. Interstitial Lung Disorders.**

**•** Hypersensitivity pneumonitis

• Sarcoidosis

**6. Vascular Lung Diseases**

• Pulmonary Embolism

• Pulmonary Hypertension

**7. Lung Cancer:**

**•** Bronchogenic Carcinoma

• Mediastinal syndrome

**8. Respiratory Failure & Adult Respiratory Distress Syndrome**

**9. Pulmonary Physiology**

**•** Pulmonary Function Test

• Sleep Apnea Syndrome

|  |  |  |
| --- | --- | --- |
| **Item** | **Time schedule** | **Teaching hours/week** |
| **Lectures** | **12 times /week** | **8h** |
| **Practical/ classes** | **4 times /week** | **12h** |
| **Clinical case discussion** | **4 times /week** | **4h** |
| **Small groups (PBL)** | **2 times /week** | **4 +6 h** |
| **material collection and gain** | **4 times /week** | **9h** |
| **Exam practical (OSCE)** |  | **7h** |
| **Total** |  | **50h** |

**8 - Student evaluation**

**8-1 COURSE POLICIES**

**8.1.1. Attendance:**

**Attendance is mandatory to all sessions. Due to the course emphasis in developing skills and not only knowledge, the students’ participation in all course activities is critical. Students who expect to be late for a mandatory class, lab, or small group session for any reason must contact the course director before the start of class. Unexcused absences demonstrate unprofessional behavior by the student.**

**8-1-2 Remediation of Unsatisfactory Performance in Course**

**A student who performs below the satisfactory level will be notified to Course Director for the purpose of developing a formal remediation plan which will established by the course director and the student.**

**8-1-3 Missing tests**

* **Students with sufficient reason for missing a test will have no grade for the missed test and their mean grade for tests will be based only on those that they completed.**
* **Students missing a test without sufficient reason will have a zero as grade for the missed tests, which will be incorporated to obtain the mean grade for their tests and the final grade for the course.**

**8-2 Course assessment:**

**Formative and summative assessment: they include:**

1. **PBL & logbook**
2. **Written exams: MCQs, ultra-short assay and case studies (problem solving) (electronic and paper based).**

**3. Practical skills assessment: Objective Structured Clinical Exam (OSCE).**

**8-3 course assessment schedule and grading:**

**Grades are obtained based on the following complementary assessments:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Assessment Method** | **Date** | **Description** | **ILOs/Competencies assessed** | **Marks** | **% of Total** |
| **1- Continuous assessments** | **At 10th wk for 2nd half (group 2) and at 20th wk for 1st half of student (group 1)** | * **Quiz (Ultra-short Q.)** | **1.4, 1.6, 1.7, 1.9, 1.13, 2.1, 2.4, 2.6, 4.5, 4.7, 4.8, 5.1, 6.6** | **5** | **12.5%** |
| **Through clinical round** | * **Log book** | **1.1, 1.2, 1.4, 1.8, 1.10, 3.1, 3.3, 3.5, 4.8, 6.6** | **4** | **10%** |
| **Through clinical round** | * **PBL** | **1.8, 1.9, 5.1, 5.2, 5.3, 5.4, 6.3, 6.4, 6.6** | **5** | **12.5%** |
| **2- Mid-term written exam** | **At 10 th wk for 2nd half (group 2) and at 20th wk for 1st half of student (group 1)** | **MCQS** | **1.4, 1.6, 1.7, 1.9, 1.13, 2.1, 2.4, 2.6, 4.5, 4.7, 4.8, 5.1, 6.6** | **4** | **10%** |
| **3- Final written exam** | **At End of semester** | **MCQ** | **1.4, 1.6, 1.7, 1.9, 1.13, 2.1, 2.4, 2.6, 4.5, 4.7, 4.8, 5.1, 6.6** | **5** | **20%** |
| **Ultra-short Q.** | **1.4, 1.6, 1.7, 1.9, 1.13, 2.1, 2.4, 2.6, 4.5, 4.7, 4.8, 5.1, 6.6** | **3** |
| **4- Practical exam** | **On next Saturday from End of each clinical round** | **OSCE & clinical cases** | **1.2, 1.4, 1.8, 1.10, 3.1, 3.3, 3.5, 4.8, 6.6** | **14** | **35%** |
| **Total** |  |  |  | **40** | **100%** |

**9. Facilities required**

* **Online lectures halls.**
* **Rooms for small group teaching.**
* **White board.**
* **Audiovisual aid (data shows).**
* **Faculty library.**
* **Electronic library.**
* **Chest outpatient clinics.**
* **Beds and patients of inpatients units (Chest department, Tanta University Hospitals).**

**10 - List of references**

* **Course notes**
* **Online lectures of staff members.**
* **Handout of lectures**
* **National book**
* **Text book: Crofton's & Douglas of chest medicine**
* **Recommended books: Current diagnosis and treatment of respiratory disease**
* **Periodicals and web sites as: http://emedicine.medscape.com/**

**Course coordinator: Prof: Ayman Hassan Abdel Zaher**

**Head of Department: Prof: Ayman Hassan Abdel Zaher**

**Course – program ILOs Matrix**

| **Course ILOs**  **Program ILOs** | | **Health care provider** | | | | | | | | | **Health promotor** | | | | **Professionalism** | | | **Scholar & scientist** | | **Health team & system** | | | **LLL & researcher** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1.1** | **1.2** | **1.4** | **1.6** | **1.7** | **1.8** | **1.9** | **1.10** | **1.13** | **2.1** | **2.4** | **2.5** | **2.6** | **3.1** | **3.3** | **3.5** | **4.5** | **4.8** | **5.1** | **5.2** | **5.4** | **6.3** | **6.4** | **6.6** |
| **Competency 1** | **1.1** | **\*** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **1.2** |  | **\*** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **1.3.** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **1.4.** |  |  | **\*** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **1.5.** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **1.6.** |  |  |  | **\*** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **1.7.** |  |  |  |  | **\*** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **1.8** |  |  |  |  |  | **\*** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **1.9** |  |  |  |  |  |  | **\*** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **1.10** |  |  |  |  |  |  |  | **\*** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **1.11** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **1.12** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **1.13** |  |  |  |  |  |  |  |  | **\*** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **1.14** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **1.15** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **1.16** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **1.17** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Competency area 2** | **2.1** |  |  |  |  |  |  |  |  |  | **\*** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **2.2** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **2.3** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **2.4** |  |  |  |  |  |  |  |  |  |  | **\*** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **2.5** |  |  |  |  |  |  |  |  |  |  |  | **\*** |  |  |  |  |  |  |  |  |  |  |  |  |
| **2.6** |  |  |  |  |  |  |  |  |  |  |  |  | **\*** |  |  |  |  |  |  |  |  |  |  |  |
| **2.7** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **2.8** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **2.9** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Competency 3** | **3.1.** |  |  |  |  |  |  |  |  |  |  |  |  |  | **\*** |  |  |  |  |  |  |  |  |  |  |
| **3.2.** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **3.3.** |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **\*** |  |  |  |  |  |  |  |  |  |
| **3.4.** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **3.5.** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **\*** |  |  |  |  |  |  |  |  |
| **3.6.** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **3.7.** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **3.8** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **3.9** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Competency 4** | **4.1.** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **4.2.** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **4.3.** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **4.4.** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **4.5** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **\*** |  |  |  |  |  |  |  |
| **4.6** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **4.7** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **4.8** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **\*** |  |  |  |  |  |  |
| **4.9** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Competency 5** | **5.1** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **\*** |  |  |  |  |  |
| **5.2** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **\*** |  |  |  |  |
| **5.3** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **5.4** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **\*** |  |  |  |
| **5.5** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **5.6** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **5.7** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **5.8** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **5.9** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **5.10** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **5.11** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **5.12** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Competency 6** | **6.1** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **6.2** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **6.3** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **\*** |  |  |
| **6.4** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **\*** |  |
| **6.5** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **6.6** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **\*** |
| **6.7** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **6.8** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **6.9** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **6.10** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |