1. **Basic Information:**

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| --- | --- | --- | --- | --- |
| **Course title:** | Chest disease(CMMS10) | | | |
| **Corse code:** | CMMS10 | | | |
| **Department:** | CHEST Department | | | |
| **Program on which the course is given:** | | Master degree in chest medicine(CMMS10) | | |
| **Faculty:** | medicine | | | |
| **University:** | zagazig | | | |
| **Academic level:** | **Level: postgraduate** | | **Semester:** | **Year: 2020 /2021** |
| **Approval date:** |  | | | |

1. **Course Aims:**

|  |  |
| --- | --- |
|  | Successful completion of the training course |
|  | Gives the trainees the opportunity to produce detailed dissertation |
|  | Provide atmosphere that enhances research |

1. **Intended Learning Outcomes (ILOs):**
2. **Knowledge and understanding:**

At the end of this course, student should be able to:

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|  | **KU-1** | Illustrate anatomical compartements of respiratory system including upper , lower airways , lung lobes and segments , thoracic cage and vascular supply of the lung and diaphragm. |
| KU 2 | Define respiratory muscles either inspiratory and expiratory and innervation of ventilator muscles. |
|  | KU3 | Explain the protective mechanisms of the respiratory system together with the methods of control of ventilation either voluntary , involuntary and humoral control of respiration. |
| KU4 | Identify the functions of the respiratory system. |
|  | KU5 | Discuss epidemiology ,incidence of bronchial asthma , COPD , pulmonary tuberculosis and lung cancer |
| KU6 | Identify how lung functions are altered in different diseases. |

1. **Intellectual Skills:**

At the end of this course, student should be able to:

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|  | **IS1** | -Complete a comprehensive pulmonary consultation including identification ,chief complaint , history of present illness, past history ,review of systems ,personal and social history and complete physical examination with particular focus on pulmonary examination |
| **IS 2** | -Interpret the most important physiological laboratory results (blood, respiratory) to distinguish a physiological from a pathological condition. |
|  | **IS 3** | – Undertake timely and appropriate investigations (radiologic ,physiologic ,laboratory ,sleep related ,endoscopic and other relevant invasive diagnostics). |
| **IS 4** | - Analyze symptoms **&** signs and construct a differential diagnosis for common presenting complaints. And also integrate clinical findings with available investigations to form a differential diagnosis . |
|  | **IS 5** | **-Correlate** the pathologic features of the disease with its presentation, laboratory investigations and complications. |
| **IS 6** | **-Interpret**  results of chest X-rays and CTs ,pulmonary function tests ,arterial blood gases,sleep studies and results of pleural ,bronchoscopic and transthoracic specimens . |

1. **Professional and Practical Skills:**

At the end of this course, student should be able to:

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|  | PS1 | Provide acute respiratory and hemodynamic care (oxygen therapy ,emergency airway management ,intiation/management /weaning from invasive and non-invasive ventilatory support ,fluids and vasoactive /inotropic support and safe administration of blood and blood products and monitor and responds to trends in physiological variables. |
| **PS2-** | **Prescribe** and manage long-term oxygen therapy and home ventilation |
|  | **PS3**- | Interpret the most important respiratory function tests (spirometry lung volumes). |
| **PS4** | -Assist in pre and post bronchoscopy care. |
|  | **PS5** | - Perform and manage various chest drains, and perform closed pleural biopsy |
| **PS6** | - Perform transthoracic needle aspiration and biopsy |

1. **General and Transferable Skills:**

At the end of this course, student should be able to:

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|  | **GS1** | -Maintain honesty and integrity in all interactions with teachers, colleagues and others with whom physicians must interact in their professional lives. |
| **GS 2** | - Recognize the scope and limits of their role as students as well as the necessity to seek and apply collaboration with other workers. |
|  | **GS 3** | Involve patients ( and /or their families /surrogates ) as appropriate in decisions about care and treatment |
| **GS 4** | - Be responsible towards work. |
|  | GS5 | Acquire the habit of life long learning |
| **GS 6-** | **Collect** material needed for research using database. |

1. **Contents:** 
   1. **Lectures:**

|  |  |  |
| --- | --- | --- |
| **Week No.** | **Topic** | **No. of hours** |
| 1 | ASTHMA, COPD | 2,2 |
| 2 | BRONCHIECTASIS ,RESPIRATORY INFECTIONS | 2,2 |
| 3 | THORACIC TUMORS,pleural dis | 4,2 |
| 4 | PULMONARY VASCULAR DISEASES | 4 |
| 5 | Diffuse Interstitial lung diseases ,Depositional lung diseases | 6,2 |
| 6 | OCCUPATIONAL & ENVIRONMENTAL DISORDERS | 4 |
| 7 | ICU :Practical physiology of pulmonary system   * Airway maintenence * Respiratory failure * Administrationof oxygen ,humidification and aerosol therapy * Lung expansion ,positioning and secretion clearence * Mechanical ventilation ;indications ,initiation ,performance of respiratory cycle * Modes of mechanical ventilation ,graphics and waveform analysis * Complications of mechanical ventilation,troubleshooting of patient ventilator system * Non-invasive respiratory monitoring and invasive monitoring of direct and derived tissue oxygenation variables * Specialized techniques in mechanical ventilation and protective lung strategies - * Weaning from mechanical ventilation * Diseases of the chest wall, respiratory muscles and diaphragm * Infections in ICU (including ventilator associated pneumonia ,catheter related ,blood stream and severe sepsis) * Nutrition in ICU | 3  2  2  3  2  3  6  3  2  5  2  2  2  3 |
| 8 | SEPSIS | 2 |
| 9 | EXTRENSIC ALLERGIC ALVEOLITIS ,MISEALANEOUS | 2,4 |
| 10 | COMMUNITY,hospital ACQUIRED PNEUMONIA | 2 |
| 11 | Diseases of the chest wall, respiratory muscles and diaphragm | 3 |
| 12 | Pleuro-pulmonary manifestations of systemic/extrapulmonary disorders | 2 |
| 13 | Genetic and developmental disorders | 2 |
| 14 | Esinophilic pulmonary diseases excluding asthma | 2 |
| 15 | Sleep-related breathing disorders | 3 |
| 16 | -Respiratory manifestations of immunodeficiency disorders (including organ transplantation) | 3 |
| 17 | - Lung transplantation | 2 |
| 18 | -Smoking cessation/respiratory disease prevention | 3 |
| 19 | - Pulmonary exercise physiology and pulmonary rehabilitation | 3 |
| 20 | - Imaging | 6 |
| 21 | - Pulmonary function testing | 3 |
| 22 | - Bronchoscopy | 3 |
| 23 | - Pleural procedures & skin testing (tuberculin and allergy tests) | 2 |
| 24 | - Symptoms and Signs | 3 |
| 25 | - Psychological factors and quality of life in respiratory diseases | 3 |
| 26 | COVID -19 Pathophysiology , investigation & ttt |  |
| 27 | Post COVID -19 syndrome |  |
| 28 | Vaccination against COVID -19 |  |
|  |  |  |
|  |  |  |

* 1. **Practical/Tutorial:**

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| --- | --- | --- |
| **Week No.** | **Topic** | **No. of hours** |
| 1 | history | 4 |
| 2 | general | 4 |
| 3 | inspection | 4 |
| 4 | palpation | 4 |
| 5 | percussion | 4 |
| 6 | ausculation | 4 |
| 7 | Radiology | 4 |
| 8 | PFT | 4 |
| 9 | Intrventional pulmonology | 4 |

1. **Teaching and Learning Methods:**

***4a) Methods used:***

|  |  |
| --- | --- |
| ***T****ool* | ***Purpose(ILOs)*** |
| ***Lectures*** | ***KU1-99,IS1-39,PS1-24*** |
| ***Clinical training*** | ***PS1-24,GS1-42*** |
| ***Seminars and meeting*** | ***KU1-99,IS1-39,PS1-24, GS1-42*** |
| ***Thesis discussion*** | In master degree |

***4b)Teaching Plan:***

***Lectures : 2/week***

***Time: 2-3 hours***

***Clinical training: 2/week***

***Time: 2-3 hours***

***Case study:2/week Time:2 hours***

***Seminars and meeting:1/week***

***Time: 4hours***

***4c)Time Plan:***

|  |  |  |  |
| --- | --- | --- | --- |
| ***Item*** | ***Time Schedul*e** | ***Teaching hours*** | ***Staff member*** |
| ***Lectures*** | ***12pm-2pm*** | ***2 h*** | ***All staff*** |
| ***Clinical training*** | 9am-12pm | ***3h*** | ***All staff*** |
| ***Case study*** | ***10am-12pm*** | ***2h*** | ***All staff*** |
| ***Seminars and meeting*** | ***10am-2pm*** | ***4h*** | ***All staff*** |
| ***Total*** |  |  |  |

1. **Student Assessment Methods**:

***6A-Attendance criteria***

***75% is the minimum acceptable attendance***

***6B) Assessment tools***

|  |  |
| --- | --- |
| ***Tool*** | ***Purpose(ILO)*** |
| * ***Written examination.*** * ***Oral examination*** * ***Clinical cases***   ***examination***   * ***M.C.Q*** * ***Observed structured clinical examination***   ***(OSCE)***  ***1-Pulmonary function testes exam***  ***2 Arterial blood gases( ABG)***  ***3-X-ray exam*** | ***A,B,C.*** |

|  |  |
| --- | --- |
| * ***Clinical round (logbook –research-history taking –case study)*** * ***Seminar presentation*** * ***Clinical exam*** * ***Oral exam***   ***Extended direct observation*** | ***B,C,D*** |

**6c )Assessment schedule:**

|  |  |  |
| --- | --- | --- |
| Assessment 1 | Mid-term |  |
| Assessment 2 | Quiz |  |
| Assessment 3 | Practical |  |
| Assessment 4 | Oral |  |
| Assessment 5 | Written |  |

**6d)Weighing of Assessments:**

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| --- | --- |
| 1st part | By the end of 6 months |
| 2nd part | By the end of 6 months |
| Total | 100% |

1. **List of References:**

|  |  |  |
| --- | --- | --- |
| **No.** | **Reference** | **type** |
| **1** | Royal collage of chest physicians | Curriculum of British college |
| **2** |  |  |
| **3** |  |  |

1. **Matrix of course contents versus ILOs:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Course contents** | **Study**  **week** | **ILOs** | | | |
| **knowledge and understanding** | **intellectual skills** | **professional and practical skills** | **general and transferable skills** |
| **1** | EXTRENSIC ALLERGIC ALVEOLITIS ,MISEALANEOUS | 1 | KU1,58,99 | IS 1,39,12 | PS 1,24 | GS1-42 |
| **2** | COMMUNITY,hospital ACQUIRED PNEUMONIA | 2 | KU 2,3,4 | IS2,7,18 | Ps2,12 | GS25,26,38 |
| **3** | Diseases of the chest wall, respiratory muscles and diaphragm | 3 | KU 2,46,25 | IS4,7,26 | Ps1,5 | GS25,29,26 |
| **4** | Pleuro-pulmonary manifestations of systemic/extrapulmonary disorders | 4 | KU5.66.45 | IS5,18,12 | Ps5,12,17 | GS15,19,35 |
| **5** | Genetic and developmental disorders | 5 | KU47,89,62 | IS15,19,35 | Ps23,22 | GS 1,39,12 |
| **6** | Esinophilic pulmonary diseases excluding asthma | 6 | KU48,45,28 | IS35,38,25 | Ps16,19 | GS2,7,18 |
| **7** | Sleep-related breathing disorders | 7 | KU15,18,65 | IS2,7,18 | Ps22,33,9 | GS 1,39,12 |
| **8** | -Respiratory manifestations of immunodeficiency disorders (including organ transplantation) | 8 | KU47,58,69 | IS4,7,26 | Ps15,16 | GS2,7,18 |
| **9** | - Lung transplantation | 9 | KU66,36,35 | IS25,26,38 | Ps18,23 | GS4,7,26 |
| **10** | -Smoking cessation/respiratory disease prevention | 10 | KU44,82,49 | IS25,29,26 | Ps12,16 | GS5,18,12 |
| **11** | - Pulmonary exercise physiology and pulmonary rehabilitation | 11 | KU55,78,19 | IS15,19,35 | Ps25,29 | GS 26,35,12 |
| **12** | - Imaging | 12 | KU22,99,17 | IS35,38,25 | Ps28,19 | GS5,30 |

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|  | **Name** | **Signature** |
| **Course Insturctor:** |  |  |
| **Course Coordinator:** | **Dr. Lamiaa gaber , Dr.Maha related,Dr. hana sami** |  |
| **Head of Department**: | **Dr. Mohammed awad** |  |
| **Approval Date** |  | |