

Course Specification

Student Version

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| Course Title: : Respiratory System |
| Course Code: RES 305 |
| Program: Bachelor of Medicine and Surgery |
| Department: Basic Medical Sciences |
| College: Vision College in Riyadh |
| Institution: Vision College in Riyadh |
| Revised: July 2025 |

1. Course Identification

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| 1. Credit hours: 4 (2+1+1) |
| 2. Level/year at which this course is offered: (Level 5/Year 2) |
| 3. Pre-requirements for this course (if any): BAN 203 GAD 203 HBO 203 MBG 203 BPC 204 HBT 204 PDO 204 PDT 204 |
| 4. Co-requisites for this course (if any): None. |
| B. Teaching Methods |
| 1 Lecture |
| 2 Practical Session |
| 3 Skill Lab |
| C. Course General Description and Objectives |
| 1. Course General Description The block is designed to provide in depth knowledge of normal and disease processes that involve the lung and respiratory system. At completion of the course, students should understand the normal structure and function of the respiratory system and know how it can be affected by disease. The course takes a pathophysiologic approach, integrating anatomy and histology principles, physiology of respiration, pathology of respiratory and lung disorders, relevant biochemistry, microbiology and pharmacologic information. The block will also introduce the students to the various upper respiratory and pulmonary disorders, many of which are common in the general population. Because many of these conditions are chronic and can impact other tissues and organs, it is important that the students understand their pathophysiology and treatment. The block will discuss shortness of breath and other clinical features in the context of specific disorders, incorporate pertinent laboratory tests and ancillary studies into clinical problem solving, and provide a solid background and understanding of pharmacologic agents and non-pharmacologic interventions used to treat. |
| 2. Course Main Objective The overall objective of this course is to provide an integrative understanding of the structure and functions of the respiratory system, in addition to the upper respiratory and pulmonary diseases with an initial general idea about how to diagnose and treat these disorders. |

D. Course Content

| No | List of Topics |
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| 1. | Upper Respiratory tract: normal structure and diseases |
| 2. | Morphology of the lung |
| 3. | Respiratory infections |
| 4. | Pulmonary Ventilation & circulation |
| 5. | Obstructive lung diseases |
| 6. | Restrictive lung diseases |
| 7. | Respiratory system neoplasm |
| 8. | Pleural Lesions - congenital conditions |
| 9. | History taking & physical examination of the respiratory system |
| 10. | Chest X-ray |

E. Assessment Tools

| No | Assessment Task | Percentage of Total Assessment Score |
|----|---|--------------------------------------|
| 1. | Problem-Based Learning (PBL) evaluation | 10% |
| 2. | Clinical skills assessments 1&2 | 10% (each 5%) |
| 3. | Midterm Exam | 20% |
| 4. | Final Practical Exam | 20% |
| 5. | Final Written Exam | 40% |

F. Learning Resources

1. References and Learning Resources

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| Essential References | <p>1. Anatomy: Clinically Oriented Anatomy, 9th edition, 2023, Keith Moore; Chapter 1: Thorax, Chapter 7: Head & Chapter 8: Neck.</p> <p>2. Physiology: Textbook of Medical Physiology; Guyton and Hall; 13th edition; 2016; Unit VII: Respiration.</p> <p>3. Pathology: Robbins Basic Pathology, Vinay Kumar, 10th Ed ; 2017; Chapter 13: Lung.</p> <p>4. Histology: Junqueira's Basic Histology, Text and Atlas; Anthony L. Mescher, 17th Ed; 2023; Chapter 17: The Respiratory System.</p> <p>5. Pharmacology: Basic & Clinical Pharmacology; Katzung; 16th Ed (2023); Chapters 20; 47 and 43-46; and 49.</p> |
| Supportive References | <p>1. Clinical: Davidson's Principles and Practice of Medicine, 22th Ed; 2014; Chapter 19</p> <p>2. Clinical Skills: Macleods Clinical Examination With Student Consult; 13th Ed (2013); Chapter 7</p> <p>3. Microbiology: Microbiology- Lippincott's Illustrated Reviews; 3ed (2012); Chapter 18 & Chapters 8-11;13; 24</p> <p>4. X-Ray: Interpreting chest x-rays- Illustrated with 100 cases (2005)</p> |
| Electronic Materials | <p>1. www.pharmacology2000.com</p> <p>2. www.cdc.gov</p> <p>3. www.webpath.com</p> |
| Other Learning Materials | None |