Jordan University of Science and Technology

Faculty of Applied Medical Sciences

Respiratory Therapy Department

RTH464 Diagnostic Of Cardiac And Respiratory Diseases
Second Semester 2024-2025

Course Catalog
3 Credit Hours. This course focuses on diagnostic approaches for a range of cardiac and respiratory diseases through disease-based learning, with an emphasis on differential diagnosis. Students will explore key diagnostic techniques, including imaging, pulmonary function tests, arterial blood gases, and electrocardiograms (ECGs). The course emphasizes developing the ability to differentiate between diseases within each system and enhancing clinical decision-making in respiratory care.
Teaching Method: On Campus

Text Book	
Title	Egan's Fundamentals of Respiratory Care
Author(s)	Robert M. Kacmarek, James K. Stoller, and Al Heuer
Edition	13th Edition
Short Name	Egan's Fundamentals of Respiratory Care
Other Information	

Course References

Short name	Book name	Author(s)	Edition	Other Information
CMDT	Current Medical Diagnosis and Treatment	Papadakis MA, McPhee SJ, Rabow MW, McQuaid KR, Gandhi M. Papadakis M.A.	30th Edition	

Instructor	
Name	**Miss Ragad Alkaraki**
Office Location	-
Office Hours	
Email	rmalkaraki@just.edu.jo

Class Schedule & Room
Section 1: Lecture Time: Sun, Tue, Thu : 09:00 - 10:00 Room: M4201

Tentative List of Topics Covered		
Weeks	**Topic**	**References**
Week 1	Orientation	
Week 2	Introduction to Diagnostics in Cardiac and Respiratory Care	
Week 3	Diagnostic Approach to Respiratory Disorders	From **Egan's Fundamentals of Respiratory Care**, From **CMDT**
Week 4	Diagnostic Approach to Cardiovascular Disorders	From **Egan's Fundamentals of Respiratory Care**, From **CMDT**
Weeks 5, 6	Obstructive and Restrictive Lung Diseases	From **Egan's Fundamentals of Respiratory Care**, From **CMDT**
Week 7	Infectious Lung Diseases	From **Egan's Fundamentals of Respiratory Care**, From **CMDT**
Week 8	Pleural Diseases and Pulmonary Vascular Diseases	From **Egan's Fundamentals of Respiratory Care**, From **CMDT**
Week 9	Sleep-Related Breathing Disorders	From **Egan's Fundamentals of Respiratory Care**, From **CMDT**
Week 9	Heart Failure and Cardiomyopathies	From **Egan's Fundamentals of Respiratory Care**, From **CMDT**
Week 11	Ischemic Heart Diseases and Arrhythmias	From **Egan's Fundamentals of Respiratory Care**, From **CMDT**
Week 12	Advances and Artificial Intelligence in Diagnostics	From **Egan's Fundamentals of Respiratory Care**, From **CMDT**
Week 13	Final Review and Case Discussions	From **Egan's Fundamentals of Respiratory Care**, From **CMDT**

Mapping of Course Outcomes to Program Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Identify and differentiate between common cardiac and respiratory diseases based on clinical signs, symptoms, and diagnostic findings.	20%	
Analyze and interpret diagnostic data from imaging studies, PFTs, ABGs, and ECGs to formulate accurate diagnoses.	20%	
Develop differential diagnoses for various cardiac and respiratory conditions, considering overlapping symptoms and test results.	20%	
Evaluate diagnostic results to determine appropriate clinical management and treatment plans for patients with respiratory and cardiac diseases	10%	
Apply established diagnostic protocols to accurately assess and manage patients with cardiac and respiratory diseases.	10%	
Apply diagnostic techniques in clinical scenarios to identify obstructive and restrictive lung diseases, pulmonary infections, and cardiac disorders.	10%	
Explain and communicate diagnostic findings and management recommendations clearly and professionally to healthcare teams	10%	

Relationship to Program Student Outcomes (Out of 100%)						
PLO 1	PLO 2	PLO 3	PLO 4	PLO 5	PLO 6	PLO 7

Policy	
Academic integrity	All graded clinical forms and documentations must be your own work. Helping other students to cheat in any way or form will not be tolerated. If we become aware of any violations of these rules, we will initiate the actions described in the Policy of Academic Integrity. Each student is responsible to have their daily documentations signed by their preceptors at each department, unit, or station.
Attendance	Regular attendance in the classroom and laboratory sessions is mandatory. When three unexcused absences are accumulated, the student may be issued a written warning. If an additional absence occurs, the student may be dropped from the program in accordance with the attendance policies outlined in the general college catalog.

Date Printed: 2025-02-18