



Jordan University of Science and Technology
Faculty of Applied Medical Sciences
Respiratory Therapy Department

RTH350 Cardiac And Respiratory Monitoring And Special Techniques - JNQF Level: 7

Second Semester 2023-2024

Course Catalog

3 Credit Hours. This extensive course delves deep into the realm of Cardio-Respiratory Monitoring and Advanced Techniques, offering students a thorough comprehension of the subject matter. The course encompasses the mastery of equipment, optimization of cardiac and respiratory monitoring systems, device setup and activation, interpretation of cardiac waveform data, development of leadership and problem-solving skills, all within the context of cardio and respiratory monitoring. By focusing on these crucial aspects of patient care, students will acquire the necessary expertise to excel and ensure the safety of their patients.

Teaching Method: On Campus

Text Book

Title	Egan's Fundamentals of Respiratory Care
Author(s)	James K. Stoller
Edition	13th Edition
Short Name	ISBN: 978-0323931991
Other Information	

Course References

Short name	Book name	Author(s)	Edition	Other Information
Mosby	Cardiopulmonary Anatomy & Physiology: Essentials for Respiratory Care	? Des Jardins, T	7th Edition	

Instructor

Name	Dr. Rani Shatnawi
Office Location	-
Office Hours	
Email	rashatnawi@just.edu.jo

Class Schedule & Room	
Section 1: Lecture Time: Mon, Wed : 10:00 - 11:30 Room: M3301 Section 2: Lecture Time: Mon, Wed : 13:00 - 14:30 Room: SG16	

Prerequisites		
Line Number	Course Name	Prerequisite Type
1163130	RTH313 Respiratory Physics	Prerequisite / Study
1163450	RTH345 Pulmonary Radiography Practical	Prerequisite / Study

Tentative List of Topics Covered		
Weeks	Topic	References
Week 1	Introduction and recap from cardiac and respiratory anatomy and physiology	
Week 2	Principle of monitoring- principle and technique involved in monitoring cardiac and respiratory (vital sign).	
Week 3	Electrocardiography (ECG)- ECG interpretation and understanding main arrhythmias	
Week 4	First exam	
Week 5	Respiratory monitoring techniques (use of pulse oximetry, capnography and other clinical symptoms).	
Week 6	Lung function test (LFT) (Techniques and interpretation)	
Week 7	Advanced respiratory support (understanding mechanical ventilation and non-invasive ventilation).	
Week 8	Second Exam	
Week 9	Cardiac and respiratory emergencies (recognition and initial management of acute cardiac and respiratory conditions).	
Week 10	Use of special equipment	
Week 11	Clinical decision making, problem solving and patient education	
Week 12	Legal and ethical consideration	

Mapping of Course Outcomes to Program Outcomes and NQF Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Analyze the anatomical structures and physiological processes involved in cardiac and respiratory systems to gain a comprehensive understanding [5PLO 1, 5PLO 2] [3L7K1, 3L7S1, 4L7S2]	10%	First exam
Read vital signs associated with cardiac and respiratory functions with utilization of appropriate monitoring techniques [5PLO 1, 5PLO 2, 5PLO 3] [3L7K1, 4L7S1, 5L7S2, 3L7C4]	15%	First exam
Examine Electrocardiography (ECG) readings to identify and understand key arrhythmias. [2PLO 1, 3PLO 2, 3PLO 3, 2PLO 4] [2L7K1, 2L7S1, 2L7S2, 4L7S3]	10%	First exam
Experiment with respiratory monitoring techniques such as pulse oximetry, lung function test and capnography to recognize clinical symptoms accurately. [5PLO 1, 10PLO 2, 5PLO 3] [5L7K1, 5L7S1, 5L7S2, 5L7C4]	20%	First exam
Analyze advanced respiratory support methods, including mechanical ventilation and non-invasive ventilation, to understand their application and implications. [3PLO 1, 3PLO 3, 4PLO 5] [2L7K1, 2L7S1, 2L7S2, 4L7S3]	10%	First exam
Examine initial management procedures for cardiac and respiratory emergencies, demonstrating the ability to recognize and initiate appropriate interventions. [2PLO 1, 2PLO 2, 3PLO 3, 3PLO 7] [2L7K1, 2L7S1, 3L7S2, 3L7S3]	10%	First exam
Experiment with special equipment used in cardiac and respiratory care settings to enhance proficiency and effectiveness [2PLO 1, 2PLO 2, 2PLO 3, 2PLO 5, 2PLO 7] [2L7K1, 3L7S1, 3L7S2, 2L7C2]	10%	First exam
Identify legal and ethical considerations pertinent to the role of a respiratory therapist, ensuring adherence to professional standards and patient rights. [5PLO 2, 5PLO 6, 5PLO 7] [5L7S3, 5L7C2, 5L7C3]	15%	First exam

Relationship to Program Student Outcomes (Out of 100%)						
PLO 1	PLO 2	PLO 3	PLO 4	PLO 5	PLO 6	PLO 7
24	32	21	2	6	5	10

Relationship to NQF Outcomes (Out of 100%)						
L7K1	L7S1	L7S2	L7S3	L7C2	L7C3	L7C4
19	21	24	16	7	5	8

Evaluation	
Assessment Tool	Weight
First exam	30%
Second exam	30%
Final exam	40%

Policy	
Statement on Professionalism	Professional behavior is always expected of students. Attitude and professional behavior are a minimum criterion for passing this class. Examples of unprofessional behavior include but are not limited to missing classes, tardiness, lack of attention for a speaker, talking to others during lecture, leaving a lecture prior to its completion without prior authorization of the instructor, working on other class material during class, and sleeping during class.
Cheating	University regulations will be applied to cases of cheating and/or plagiarism.
Cell phone	The use of cellular phones is prohibited in classrooms and during exams. The cellular phone must be switched off in classrooms and during exams.
Attendance	No points will be counted for points attendance of this class, however attending the lectures will greatly enhance your grade. The student is responsible for any information discussed in lecture sessions. It is imperative to attend all classes!
Absence	University regulations will be applied. Students are not allowed to be absent for more than 20% of lectures for any reason or excuse. If a student exceeds the absence limit, he or she will not be allowed to sit for future course exams. (Please review university regulation for more details)
Make-up exams	Make-up exams is entitled for students who miss the exam with accepted legal or medical excuse endorsed by the instructor within 24 hours after the scheduled exam (Please review university regulation for more details)

Date Printed: 2024-03-15