



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

RTH475 Advanced Heart And Lung Emergency - JNQF Level: 7

First Semester 2024-2025

Course Catalog

3 Credit Hours. Study of the anatomy and functions of the heart, lungs and circulatory system, electrophysiology, evaluation of the patient's heart and lungs, conducting, evaluation and interpretation of EKG, pathophysiology of arteriosclerosis, special cases resulting from heart and lung diseases associated with atherosclerosis, peripheral vascular emergencies, drugs, reading and analysis of EK Heart, Basic Cardiopulmonary Resuscitation Skills, and how to deal with bulky codes

Teaching Method: On Campus

Text Book

Title	EGAN'S Fundamentals of Respiratory Care
Author(s)	Kacmarek R. M., Stoller J. K., Heuer A. J.
Edition	12th Edition
Short Name	Ref#1
Other Information	2021, https://www.elsevier.com/books/egans-fundamentals-of-respiratory-care/kacmarek/978-0-323-51112-4

Course References

Short name	Book name	Author(s)	Edition	Other Information
Ref#:2	Basic life support (student manual), 2020	American Heart Association	1st Edition	https://www.ahajournals.org/doi/10.1161/CIR.0000000000000916 , ISBN:978-1616697686
Ref#:3	Advanced cardiac life support (student manual), 2020	American Heart Association	1st Edition	https://www.ahajournals.org/doi/10.1161/CIR.0000000000000916 , ISBN:978-1616697686

Ref#:4	Pediatric advanced life support (student manual), 2020	American Heart Association	1st Edition	https://www.ahajournals.org/doi/10.1161/CIR.0000000000000901
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Instructor	
Name	Mr. Ibrahim Mahmoud
Office Location	Pending
Office Hours	Sun : 08:00 - 08:30 Mon : 10:00 - 12:30 Wed : 10:00 - 12:30 Thu : 10:00 - 12:00
Email	immahmoud@just.edu.jo

Class Schedule & Room
Section 1: Lecture Time: Mon, Wed : 08:30 - 10:00 Room: M4201

Tentative List of Topics Covered		
Weeks	Topic	References
Week 1	Orientation to Course - syllabus overview	From Ref#1 , From Ref#2 , From Ref#3 , From Ref#4
Week 2	Basic life support	P788 From Ref#1 , Adult/AED From Ref#2
Week 3	Basic life support	P788 From Ref#1 , Pediatric BLS From Ref#2 , Pediatric BLS From Ref#4
Weeks 4, 5	ECG	
Week 6	Cardiac Arrest/high performance team	P788 From Ref#1 , Cardiac arrest From Ref#3
Week 7	Cardiac Arrest and post cardiac arrest care	P788 From Ref#1 , post cardiac arrest care From Ref#3
Week 8	Preventing arrest/bradycardia	P788 From Ref#1 , From Ref#3
Week 9	Preventing arrest/tachycardia	P788 From Ref#1 , From Ref#3
Week 11	ACS and Stroke	From Ref#3
Week 12	PALS-Systematic approach	From Ref#4

Week 13	PALS-Respiratory emergencies	From Ref#:4
Week 14	PALS- shock emergencies	From Ref#:4
Week 15	PALS- Arrhythmia emergencies	From Ref#:4
Week 16	Neonatal Resuscitation	From Ref#:4

Mapping of Course Outcomes to Program Outcomes and NQF Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Memorize the anatomical structures and physiological functions of the respiratory and cardiovascular systems. (PLO1) (L7K1) [1PLO 1] [1L7K1]	5%	
Discuss the pathophysiology and common signs and symptoms associated with respiratory and cardiac arrest. (PLO1), (L7K1, L7S2) [1PLO 1] [1L7K1, 1L7S2]	5%	
Describe the different approached treatment for both brady and tachycardiac patients (PLO1), (L7K1, L7S2) [1PLO 1] [1L7K1, 1L7S2]	5%	
Interpret cardiac rhythm strips and 12-lead ECG. (PLO1, PLO2, PLO5) (L7K1, L7S1, L7S2, L7C2, L7C4) [1PLO 1, 1PLO 2, 1PLO 5] [1L7K1, 1L7S1, 1L7S2, 1L7C2, 1L7C4]	10%	
Utilize critical thinking and problem-solving skills to develop comprehensive treatment plans to prevent arrest or already arrested patient incorporating last AHA evidence-based practices. (PLO3, PLO5), (L7K1, L7S1, L7S3, L7C1, L7C2, L7C4) [1PLO 3, 1PLO 5] [1L7K1, 1L7S1, 1L7S3, 1L7C1, 1L7C2, 1L7C4]	15%	
Demonstrate proficiency the role of respiratory therapists and effectively communicate and collaborate with other healthcare professionals managing high performance team. (PLO2, PLO4, PLO7), (L7K1, L7S1, L7S2, L7C1, L7C2, L7C3, L7C4) [1PLO 2, 1PLO 4, 1PLO 7] [1L7K1, 1L7S1, 1L7S2, 1L7C1, 1L7C2, 1L7C3, 1L7C4]	15%	
Apply systematic approach in the care of pediatric patients with respiratory and cardiac emergent disorders, including Shock, arrhythmias, respiratory emergencies. (PLO2, PLO7), (L7S2, L7C1, L7C2, L7C4) [1PLO 2, 1PLO 7] [1L7S2, 1L7C1, 1L7C2, 1L7C4]	10%	
Compare the different between management approach strategies for different respiratory and cardiac emergencies for all age groups (PLO1, PLO3), (L7K1, L7S2, L7S3, L7C1) [1PLO 1, 1PLO 3] [1L7K1, 1L7S2, 1L7S3, 1L7C1]	20%	
Appraise patient outcomes to optimize patient care and improve quality of care for individuals with respiratory and cardiac emergencies (PLO1, PLO6) (L7K1, L7S2, L7S3, L7C1) [1PLO 1, 1PLO 6] [1L7K1, 1L7S2, 1L7S3, 1L7C1]	10%	
Apply systematic approach management of ACS and stroke . (PLO1, PLO2, PLO3) (L7K1, L7S2, L7S3, L7C1, L7C4) [1PLO 1, 1PLO 2, 1PLO 3] [1L7K1, 1L7S2, 1L7S3, 1L7C1, 1L7C4]	5%	

Relationship to Program Student Outcomes (Out of 100%)						
PLO 1	PLO 2	PLO 3	PLO 4	PLO 5	PLO 6	PLO 7
35	15	19.17	5	10.83	5	10

Relationship to NQF Outcomes (Out of 100%)							
L7K1	L7S1	L7S2	L7S3	L7C1	L7C2	L7C3	L7C4
25.14	6.64	20.14	11	15.64	9.14	2.14	10.14

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

Policy	
Statement on Professionalism	Professional behavior is expected of students at all times. 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 a lecture, leaving a lecture before 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 in 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!
Make-up Exam	Make-up exams are entitled to students who miss the exam with an accepted legal or medical excuse endorsed by the instructor within 24 hours after the scheduled exam (Please review university regulations for more details)
Feedback	Concerns, complaints, questions, and/or feedback are appreciated and will be important to the instructor. You can contact your instructor using the e-mail or during office hours
Examination Period	First exam : Saturday - Saturday 02-16 / 11 / 2024 Second exam: Saturday - Saturday 07-21 / 12 / 2024 Final exam: Saturday - Saturday 11-25 / 01 / 2025
others	.

Date Printed: 2024-10-10