Jordan University of Science and Technology

Faculty of Applied Medical Sciences

Respiratory Therapy Department

RTH212 General Respiratory Care - JNQF Level: 7

Second Semester 2023-2024

Course Catalog
2 Credit Hours. This course provides core knowledge of gas laws and physics, compressed gases (manufacture, storage, and piping systems), delivery systems (regulators, flow-meters, and therapy devices), oxygen therapy, oxygen analyzers and humidification.
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	TextBook
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 # 1	MOSBY's Respiratory Care Equipment, 11th Ed. (2022).	Cairo, J. M.	11th Edition	2022,_978-0-323-71221-7
Recommended for reading	Clinical Assessment in Respiratory Care	Huerer, A. J. Wilkins	9th Edition	(2022). ISBN: 978-0-323-69701-9
Recommended for reading	Laboratory Excercises for Competency in Respiratory care	Bulter T. J.	3rd Edition	

Instructor	
Name	**Mr. Ibrahim Mahmoud**
Office Location	Pending
Office Hours	

Email	immahmoud@just.edu.jo

Class Schedule & Room
Section 1: Lecture Time: Sun, Tue : 08:30 - 09:30 Room: N1303

Prerequisites		
Line Number	**Course Name**	**Prerequisite Type**
1162110	RTH211 Physiology And Anatomy Of The Heart And Respiratory System	Prerequisite / Study

Tentative List of Topics Covered		
Weeks	**Topic**	**References**
Week 1	Week of Withdrawing and adding courses/Orientation	
Week 2	Gas Laws and Physics	**C6** From **TextBook**, **C1** From **Ref # 1**
Week 3	Properties of Medical Gases	**C41** From **TextBook**, **C3** From **Ref # 1**
Week 4	Storage and Transport of Medical Gases (Cylinders, Liquid Oxygen Systems, Medical Air Supply, Central Supply Systems)	**C41** From **TextBook**, **C3** From **Ref # 1**
Week 5	Storage and Transport of Medical Gases (Piping Systems, Station Outlets, SISS)	**C41** From **TextBook**, **C3** From **Ref # 1**
Week 6	First Exam	
Week 7	Gas Delivery Systems (regulators, flow-meters, and therapy devices)	**C4** From **Ref # 1**
Weeks 8, 9	Oxygen Therapy (overview, goals, indications, hazards, delivery systems, and monitoring)	**C42** From **TextBook**, **C4** From **Ref # 1**
Week 10	Clinical Hyperbaric Oxygen Chambers and Related Respiratory Care Equipment	**C42** From **TextBook**, **C4** From **Ref # 1**
Week 11	2nd Exam	
Week 12	Oxygen Analyzers (Types and principles)	**C19** From **TextBook**, **C8** From **Ref # 1**
Week 13	Humidification (Physiological principles, indications, hazards, and functional type)	**C39** From **TextBook**
Weeks 14, 15	Humidity and Bland Aerosol Therapy	**C39** From **TextBook**, **C6** From **Ref # 1**

Week 16	Rivision / Final Exam	**All Related Topics** From **TextBook**, **All Related Topics** From **Ref # 1**

Mapping of Course Outcomes to Program Outcomes and NQF Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Discuses the properties of gases [1PLO 1] [1L7K1]	9%	First Exam, Final Exam
Discusses the clinical application of medical gases [1PLO 1] [1L7K1]	9%	First Exam, Final Exam
Describe how to store, transport, and use compressed gas [1PLO 1] [1L7K1]	16%	First Exam, Final Exam
Select the appropriate devices to regulate gas pressure [1PLO 1] [1L7K1]	9%	Second Exam, Final Exam
Identify different types of oxygen therapy devices and their indications, contraindications, advantages, and disadvantages. [1PLO 1] [1L7K1]	23%	Second Exam, Final Exam
Understand how various types of humidifiers work [1PLO 1] [1L7K1]	9%	Final Exam
Compare the principle of operation for different types of oxygen analyzers. [1PLO 1] [1L7K1]	9%	Final Exam
Describe the principles of bland aerosol therapy [1PLO 1] [1L7K1]	16%	Final Exam

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

Relationship to NQF Outcomes (Out of 100%)
L7K1
100

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

Policy

Teaching & Learning Methods	1. Objectives of the course will be achieved through class presentations, videos, and case studies. 2. You are responsible for all material covered in the class. 3. Please communicate any concerns or issues as soon as possible either in class, or by E-mail. Teaching duration: - Duration: 16 weeks Examination: - Online exams will be conducted at JUST campus, multiple choice questions will be used in the online exams, while make-up exams will be as "written questions", after students get the permission via the policy of the university for the make-up exams.
Attendance policy:	Attendance is mandatory; students are allowed 20 % absence with/without excuses
Contact with the Instructor	Via office hours, email, e-learning and office phone. ** CONTACT VIA PERSONAL CELL PHONE IS NOT WELCOMED ** SMOKING AND CELL PHONES ARE NOT PERMITTED

Date Printed: 2024-02-17