

RESC 3710 - Respiratory Care Pharmacology

Fall 2026 Syllabus, Section 01, CRN 42273,

Credit hours: 3

Instructor

Heather O'Connell

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Public Instructor Information

Instructor Title: Dr. Heather O'Connell DHA, RRT, RRT-ACCS, CPFT

Instructor Professional Qualifications: Doctorate of Healthcare Administration- Walden University- 2022; Masters Healthcare Administration- Southern New Hampshire University- 2016; Bachelors of Science- Cardiopulmonary Sciences- University of Central Florida- 2008

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Course Description

3710. Respiratory Care Pharmacology. This course will review the therapeutic effects, side effects, indications and contraindications along with dosages, drug delivery routes as well as standard and modified delivery absorption methods of pulmonary related pharmacological agents and medications for aspects of pulmonary related medicine. 3 hour lecture. Prereq.: none. 3 s.h.

Course Readings

Group	Title	Author	ISBN
Required	Principles of Pharmacology for Respiratory care, third edition,	Bills & Rose	ISBN 978-1-284-13979-2
Optional	Rau's Respiratory Care Pharmacology 10th edition		

*Supplemental Materials:

AARC *Patients guide to aerosol drug delivery 2nd edition*

The American Association for Respiratory Care: Clinical Practice Guidelines:

Any good medical dictionary, i.e. Dorland's, Taber's, Mosby's;

The course readings are subject to change in the event of extenuating circumstances, research developments, current events, and/or to ensure better learning.

Schedule of Topics and Assignments

Day	Date	Reading(s)	Proposed Topic	Due/To Prepare for Class
Tue	8/25	Introduction Overview of Course	Review syllabus	
Thu	8/27	Chapter 1: Introduction to Medication Information, Drug Development, and Regulation		
Tue	9/1	Chapter 2: General Pharmacologic Concepts		
Thu	9/3	Chapter 2: General Pharmacologic Concepts		
Tue	9/8	Chapter 3: Introduction to the Pharmacology of the ANS		Homework1: Answer all post test questions for Chapter 1, 2, and 3 (Due 9/10) Review for Quiz 1



Thu	9/10	Quiz 1 (25 pts) Covers topics for chapters 1, 2, and 3.	Quiz 1 (25 POINTS) Covers topics from chapters 1, 2, and 3.	Table 1: Fill out tables for short acting (SABA) and long acting (LABA) bronchodilators. Due by 9/18
Tue	9/15	Chapter 5: Administration of Aerosolized and Instilled Medications	Go over Quiz 1	Table 2: Fill out tables for anti-cholinergic bronchodilators Due 9/25
Thu	9/17	Chapter 5: Administration of Aerosolized and Instilled Medications		Continue working on Table 2
Tue	9/22	Chapter 6: Bronchodilator Therapy		Homework 2: Answer all post test questions for chapters 5 and 6. Due by 10/1
Thu	9/24	Chapter 6: Bronchodilator Therapy		
Tue	9/29	Review for exam 1		
Thu	10/1	Exam 1 (75 points)	Exam 1 covers topics from chapters 1, 2, 3, 5, and 6. Drug tables for bronchodilators will also be on the test.	
Tue	10/6	Chapter 7: Anti-inflammatory Drugs Used in Respiratory Disease	Go over Exam 1	Table 3: Fill out tables for steroids and anti-asthmatics. Due 10/15
Thu	10/8	Chapter 7: Anti-inflammatory Drugs Used in Respiratory Disease	Continue from 10/6	
Tue	10/13	Chapter 7: Anti-Inflammatory Drugs Used in Respiratory Disease. Chapter 8: Wetting Agents and Mucoactive Drugs		Homework 3: Answer all post test questions for chapters 7, 8, and 9. Due 10/23
Thu	10/15	Chapter 7: Anti-Inflammatory Drugs Used in Respiratory Disease Chapter 8: Wetting Agents and Mucoactive Drugs	Continue from 10/13	
Tue	10/20	Chapter 9: Surfactant Agents Chapter 10: Aerosolized Antimicrobial Agents	Quiz 2 (25 points) Covers chapters 7, 8, and 9.	Table 4: Fill out tables for miscellaneous medications used in Respiratory Care. Due 11/3
Thu	10/22	Chapter 9: Surfactant Agents Chapter 10: Aerosolized Antimicrobial Agents	Continue from 10/20	
Tue	10/27	Chapter 11: Agents used in Special Procedures and of Pulmonary Importance	Review for Exam 2	Homework 4: Answer all post test questions for chapter 10 and 11. Due 10/29
Thu	10/29	Exam 2 (75 points)	Covers Chapters 7, 8, 9, and 10 and medication tables for Steroids, Anti-asthmatics, Mucolytics, Surfactants, and Antimicrobials. (WILL HAVE QUESTIONS FROM PREVIOUS CHAPTERS)	
Tue	11/3	Chapter 12: Critical Care Pharmacology and ACLS Chapter 13: Cardiovascular and Renal Pharmacology	Review Exam 2	Homework 5: Answer post test questions for chapters 12 and 13. Due 11/17
Thu	11/5	Chapter 12: Critical Care Pharmacology and ACLS Chapter 13: Cardiovascular and Renal Pharmacology	Continue from 11/3	
Tue	11/10	?????		
Thu	11/12	Quiz 3 (25 pts) Covers chapters 10, 11, and 12.	Quiz 3 (25 points). Covers Chapters 10, 11, and 12	
Tue	11/17	Chapter 14: Pharmacology of the CNS		
Thu	11/19	Chapter 14: Pharmacology of the CNS	Go over quiz 3	
Tue	11/24	General Review for the Semester		
Thu	11/26	Thanksgiving Break		



Tue	12/1	Chapter 15: Pharmacology of the Endocrine System	Quiz 4 (25 points)	Homeowkr 6: Answer all post test questions for chapter 14, 15, and 16. Due 12/3
Thu	12/3	Chapter 16: Antimicrobial Pharmacology	Go over quiz 4 Review for the Final Exam	
Tue	12/8	Final Exam 0800-1000	CANNOT BE CHANGED PER YSU POLICY	

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