
RESC 4870 - Advanced Cardiopulmonary Case Management

Fall 2026 Syllabus, Section A01, CRN 43275,

Credit hours: 3

Instructor

Mary Mittwede

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Public Instructor Information

Instructor Title: Mary Mittwede, MRC, RRT, RPFT, RRT-ACCS

Instructor Professional Qualifications:

Master's, Respiratory Therapy, Youngstown State University 2022

Bachelor's, Respiratory Therapy, Youngstown State University 2008

Instructor Office Location: N/A

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Course Description

4870. Advanced Cardiopulmonary Case Management. This course is designed to strengthen the student's knowledge of C-P disorders by incorporating evidence-based practices into C-P case management. The student will learn to apply these strategies in acute care, transitional and long-term care settings. Current protocols will also be discussed. Prereq.: none. 3 s.h.

This course is designed to strengthen the student's knowledge of C-P disorders by incorporating evidence-based practices into C-P case management/rehabilitation patient care the student will learn to apply these strategies in an acute care, transitional and long-term care and discharge settings.

This course will also demonstrate the multidisciplinary nature of a typical pulmonary rehabilitation program. And the role of the respiratory care practitioner in preventive care activities. And provide the student with a basic understanding of the components of a pulmonary rehabilitation program. The student will also understand the current guidelines for smoking cessation and asthma management.

Course Readings

Group	Title	Author	ISBN
Required	Hodgkin, J.E Pulmonary Rehabilitation: Guidelines to Success	Mosby	9780443261732

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

Week of	Reading(s)	Proposed Topic	Due/To Prepare for Class
8/24	Chapters 1 & 2 Powerpoint	Chapter 1: Pulmonary Rehabilitation: History and Definition • Define pulmonary rehabilitation (PR) and its primary objectives. • Summarize how PR integrates exercise, education, and behavioral strategies to improve patient outcomes. • Describe the rationale for pulmonary rehabilitation in chronic respiratory disease. Chapter 2: Selection and Assessment of the Chronic Respiratory Disease Patient for Pulmonary Rehabilitation • Define pulmonary rehabilitation (PR) and its goals in chronic respiratory disease. • List common inclusion and exclusion criteria for PR programs • Identify standard assessment tools and baseline measurements used in PR evaluation. • Develop individualized PR programs based on assessment findings and patient-specific needs.	• Post an introduction of yourself and respond to others. • Complete module 1 discussion post and respond to others
8/31	Chapters 4, 5 & 11 Powerpoint	Chapter 4: Systemic Effects of Chronic Obstructive Pulmonary Disease • Define the systemic effects and comorbidities associated with COPD. • Apply assessment strategies to evaluate systemic effects in patients with COPD. • Analyze the impact of systemic effects on patient outcomes, including exercise capacity and quality of life. Chapter 5: Dyspnea: Assessment and Management • Define dyspnea and distinguish between its different types (e.g., exertional, at rest, orthopnea). • List common causes of dyspnea in patients with pulmonary and cardiac conditions. • Identify standard assessment tools and scales used to measure dyspnea severity (e.g., Borg scale, mMRC). Chapter 11: Inspiratory Muscle Training • Define inspiratory muscle training (IMT) and identify the muscles involved in inspiration. • List the indications and contraindications for IMT in patients with respiratory disease. • Identify devices commonly used for inspiratory muscle training.	• Complete module 2 discussion post and respond to others • Complete Quiz 1



9/7	Chapters 10, 14 & 32 Powerpoint	Chapter 10: Exercise in the Rehabilitation of Patients with Respiratory Disease • Define key terms related to exercise physiology, including aerobic capacity, anaerobic threshold, and ventilatory limitation. • List the types of respiratory diseases commonly addressed in pulmonary rehabilitation. • Identify common exercise modalities used in respiratory rehabilitation programs. Chapter 14: Nutritional Assessment and Support • List common nutritional problems encountered in patients with chronic lung disease (e.g., malnutrition, obesity, cachexia). • Apply nutritional strategies to manage weight loss, muscle wasting, or obesity in COPD. • Differentiate between the nutritional needs of undernourished versus overweight patients with chronic lung disease. • Examine case scenarios to determine how nutritional status influences PR outcomes. Chapter 32: Exercise and Pulmonary Hypertension • Define pulmonary hypertension (PH) and describe its classification and pathophysiology • Demonstrate safe exercise assessment techniques for patients with PH, including monitoring oxygen saturation, heart rate, and perceived exertion. • Apply guidelines for determining appropriate exercise intensity, duration, and frequency for PH patients.	• Complete module 3 discussion post and respond to others
9/14	Begin development of your PR project	• The student will investigate an area of interest to them involving the development and future direction of the respiratory care profession in the pulmonary rehabilitation arena.	• Complete module 4 discussion post as to the focus of your project for peer review and instructor approval respond to others in a respectful courteous manner with constructive feedback



9/21	Exercise Capacity Dyspnea and Symptom Scales Health-Related Quality of Life (HRQOL) Measures Health Care Utilization Psychosocial and Behavioral Outcomes	Exercise Capacity (e.g., 6-Minute Walk Test, Shuttle Walk Test) • List the standard exercise capacity tests recommended by the ATS. • Explain the rationale for using functional walk tests in assessing PR outcomes. • Perform and score a 6-minute walk test following ATS guidelines. • Compare exercise capacity results before and after PR to evaluate improvements. • Critically assess the strengths and limitations of different exercise outcome measures. • Design a protocol for incorporating exercise testing into a PR program's outcome assessment strategy. Dyspnea and Symptom Scales (e.g., Borg Scale, mMRC Dyspnea Scale, CRQ Dyspnea Domain) • Identify commonly used dyspnea measurement tools endorsed by ATS. • Describe how patient-reported symptom scales provide insight into functional limitations. • Administer and interpret dyspnea scales in a clinical setting. Health-Related Quality of Life (HRQOL) Measures (e.g., St. George's Respiratory Questionnaire, COPD Assessment Test, CRQ) • Recall validated questionnaires used to assess HRQOL in chronic lung disease. • Explain the importance of HRQOL as an outcome in PR. • Administer and score a HRQOL tool for a COPD patient. • Interpret HRQOL changes in the context of clinical improvements. • Assess which HRQOL tool is most appropriate for different patient populations. Health Care Utilization (e.g., hospitalizations, ED visits, medication use) • Identify key health care utilization measures tracked in PR outcomes research. • Explain how PR can reduce hospitalizations and health care costs. • Document and track patient hospital admissions pre- and post-PR. • Compare patterns of health care utilization across PR participants and non-participants • Critique the reliability of utilization data as an outcome measure. Psychosocial and Behavioral Outcomes (e.g., depression, anxiety, self-management skills) • List common psychosocial tools used in PR outcome assessment (e.g., HADS, PHQ-9). • Describe the relationship between psychosocial well-being and COPD disease	• Complete Module 5 discussion post and respond to others • Complete Quiz 2
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9/28	Smoking Cessation Powerpoint	Smoking Cessation • Describe tobacco dependence and quitting. • Review tobacco treatment healthcare policy issues. • Describe evidence based interventions for tobacco dependence. • List tools to provide services in the acute care environment	• Complete module 6 discussion and respond to others • Complete Quiz 3
10/5	No reading	Complete approved PR project	• Complete module 7 reflection discussion and respond to others • Complete/upload final PR assignment No late assignments can be accepted after the due date

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