

NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY RTH 222 – CARDIOPULMONARY SCIENCE II (3 CR.)

Course Description

Focuses on assessment, treatment, and evaluation of patients with cardiopulmonary disease. The course explores cardiopulmonary, renal, and neuromuscular physiology, and pathophysiology. Lecture 3 hours per week.

General Course Purpose

This course is offered in the fourth semester of the program and is a continuation of Cardiopulmonary Science I. The purpose of this course is to complete the student's knowledge of diseases affecting the cardiopulmonary system. Evaluation of fluid and electrolyte balance is also explored.

Course Prerequisites/Corequisites

Corequisite: RTH 121

Course Objectives

Upon completing the course, the student will be able to:

- A. Identify the following as they relate to each of the specific diseases studied:
 1. etiology
 2. physiologic changes
 3. signs and symptoms
 4. clinical course
 5. treatment
 6. patient prognosis
- B. Interpret the blood and electrolyte profile as it applies to the patient assessment
- C. Identify specific AARC protocols related to specific disease states and pathophysiology
- D. Analyze the theories and values for hemodynamic monitoring of critical care patients

Major Topics to be Included

- A. Diseases of the pleural space
- B. Lung cancer
- C. Disease of the chest wall
- D. Sleep apnea
- E. Pulmonary fibrosis
- F. Pneumoconioses
- G. Pneumonia
- H. Neuromuscular diseases
- I. Near drowning/aspiration
- J. Bronchiectasis
- K. Fungal infections of the lung
- L. Tuberculosis
- M. Medical complications of acutely ill patients:
 1. Adult respiratory distress syndrome
 2. Disseminated intravascular coagulation
 3. Shock
- N. Congestive Heart Failure (CHF) and Myocardial Infarction (MI)
- O. Explain the principles of and demonstrate the proper use of the equipment employed for hemodynamic monitoring