

NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY RTH 121 – CARDIOPULMONARY SCIENCE I (3 CR.)

Course Description

Focuses on pathophysiology, assessment, treatment, and evaluation of patients with cardiopulmonary disease. Explores cardiopulmonary and neuromuscular physiology and patho- physiology. Lecture 3 hours.

General Course Purpose

This course is offered in the second semester of the program and is a continuation of Anatomy and Physiology of the Cardiopulmonary System. The purpose of this course is to complete instruction in cardiopulmonary physiology and to introduce some of the major pulmonary diseases.

Course Prerequisites/Corequisites

Prerequisite: RTH 111

Course Objectives

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

- Perform advanced cardiopulmonary assessment
- Recommend therapeutic procedures based on the interpretation of arterial blood gases
- Analyze and explain the white and red blood cell profile and normal electrolyte values
- 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

Major Topics to be Included

- Advanced cardiopulmonary physiology
- Interpretation of blood gases
- Clinical laboratory studies
- Selected cardiopulmonary diseases:
 1. chronic bronchitis
 2. emphysema
 3. asthma
 4. post-operative complications
 5. bacterial pneumonia
 6. acute respiratory failure