

**J. Sargeant Reynolds Community College**  
**Course Content Summary**

**Course Prefix and Number:** RTH 112

**Credits:** 3

**Course Title:** Pathophysiology of the Cardiopulmonary System

**Course Description:** Presents pathophysiology of medical and surgical diseases with emphasis upon diseases of the cardiopulmonary system. Prerequisite: Successful completion of all curriculum courses offered during the first semester of the AAS degree in Respiratory Therapy. Lecture 3 hours per week.

**General Course Purpose:** The purpose of the course is to provide respiratory therapy students with the foundational knowledge of diseases of the cardiopulmonary system. This course incorporates all of the previously learned skills, competencies, and cognitive thought processes to enhance critical thinking in the classroom and in the clinical environment.

**Course Prerequisites and Co-requisites:**

Prerequisite: Successful completion of all curriculum courses offered during the first semester of the AAS degree in Respiratory Therapy.

**Student Learning Outcomes:**

Upon completing the course, the student will be able to

- a. Describe and discuss the principles, definitions, and concepts which are most useful for the general clinical practice of respiratory care;
- b. Describe and discuss the etiology and pathology of each disease and disorder;
- c. Describe and discuss the clinical, laboratory, and roentgenic manifestations of each pathologic condition;
- d. Describe and discuss the diagnosis and treatment of each condition; and
- e. Analyze the development, implementation, and evaluation of therapeutic objectives for each pathologic condition.

**Major Topics to Be Included:**

- a. The patient with respiratory disease
- b. Diagnostic methods
- c. Diseases of the upper respiratory tract
- d. Lower respiratory tract infections
- e. Chronic obstructive pulmonary diseases
- f. Chronic diffuse infiltrative diseases
- g. Idiopathic pulmonary fibrosis
- h. Immunologic diseases of the lung
- i. Environmental lung diseases
- j. Pulmonary aspiration
- k. Pulmonary atelectasis
- l. Lung cancer
- m. Disorders of pulmonary circulation
- n. Diseases of pleura
- o. Disorders of the respiratory pump
- p. Respiration in disorders of the central nervous system
- q. Sleep-related breathing disorders
- r. Trauma and surgery of the chest
- s. Respiratory failure
- t. Respiratory distress syndrome of the newborn

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