

**RCP 210**  
**CRITICAL CARE CONCEPTS**

**COURSE DESCRIPTION:**

Prerequisites: Successful completion of three semesters of the Respiratory Therapy program

Corequisites: RCP 235

This course provides further refinement of acute patient care and underlying pathophysiology. Topics include a continuation in the study of mechanical ventilation, underlying pathophysiology, and introduction of critical care monitoring. Upon completion, students should be able to demonstrate competence in concepts and procedures through written and laboratory evaluations. This course also covers knowledge and skills the student must have to provide respiratory care for neonatal and pediatric patients. Course Hours Per Week: Class, 3. Lab, 3. Semester Hours Credit, 4.

**LEARNING OUTCOMES:**

At the completion of the course requirements, the student will be able to:

- a. Describe the theory and function of pleural drainage systems.
- b. Use invasive and non-invasive hemodynamic monitoring in ventilator management.
- c. Describe commonly encountered neonatal and pediatric diseases.
- d. Describe the theories of neonatal and pediatric ventilation.

**OUTLINE OF INSTRUCTION:**

- I. Theory and function of pleural drainage systems
  - A. One, two, and three bottle set-ups
  - B. Commercial devices
  - C. Drainage systems to treat bronchopleural fistula
- II. Invasive and non-invasive hemodynamic monitoring in ventilator management
  - A. Blood gas techniques
  - B. Cardiopulmonary physiology
  - C. Blood gas interpretation
  - D. Clinical acid-base and oxygenation
- III. Commonly encountered neonatal and pediatric diseases
  - A. Congenital
  - B. Infections
  - C. Iatrogenic
  - D. Idiopathic

- IV. Theories of neonatal and pediatric ventilation
  - A. Indications
  - B. Complications
  - C. Traditional mechanical ventilation
  - D. Alternative mechanical ventilation
  - E. Mean airway pressure significance
  - F. Mechanical ventilation parameters

**REQUIRED TEXTBOOKS AND MATERIALS:**

Textbook to selected by instructor.

**STATEMENT FOR STUDENTS WITH DISABILITIES:**

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 686-3652 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1309.