

RCP 111
THERAPEUTICS AND DIAGNOSTICS

COURSE DESCRIPTION:

Prerequisites: RCP 110, RCP 113, RCP 114 , BIO 168

Corequisites: RCP123, RCP 144

This course provides emphasis on therapeutic and diagnostic procedures. Topics include applying problem solving strategies in the patient care setting, applying ethical principles in decision making, and practicing professional responsibilities, which will prepare students for clinical practice. Upon completion, students should be able to demonstrate competence in respiratory therapy concepts and procedures through written and laboratory evaluations.

Course Hours Per Week: Class, 4. Lab, 3. Semester Hours Credit: 5.

LEARNING OUTCOMES:

At the completion of the course requirements, the student should understand:

- I. Assessment of Respiratory disorders
- II. Basic therapeutics
- III. Patient education
- IV. Long-term care

OUTLINE OF INSTRUCTION:

- I. Assessment of Respiratory disorders
 - a. Interpretation of clinical laboratory data
 - i. CBC
 - ii. Electrolytes
 - iii. Sputum
 - iv. Gram staining
 - b. Performing and interpreting electrocardiograms
 - i. Set up leads for a 12 lead ECG
 - ii. Recognize pertinent ECG patterns
 - iii. Discuss PQRST Complex and heart physiology
 - c. Pulmonary function testing
 - i. Restrictive versus obstructive patterns
 - d. Thoracic imaging
 - i. Chest radiograph
 - ii. Ultrasonography
 - iii. Computed tomography
 - iv. Magnetic resonance imaging
 - e. Interpret and use an ABG in patient assessment
 - i. Analysis and monitoring of gas exchange
 - f. Non-invasive monitoring
 - i. Pulse oximetry
 - ii. End-tidal CO₂
 - g. Point-of-care testing

- II. Basic therapeutics
 - a. Airway management
 - i. Airway suctioning
 - ii. Obtaining a sputum sample for analysis
 - iii. Objectives and hazards of suctioning
 - iv. Usage and care of all artificial airways
 - v. Bronchoscopy
 - b. Lung expansion therapy
 - i. Concepts of hyperinflation
 - ii. Choosing the right modality
 - iii. Hazards and objectives of various modalities
 - c. Bronchial hygiene therapy
 - i. Choosing the right modality
 - ii. Hazards and objectives of various modalities
- III. Patient education
 - a. Health promotion
- IV. Long-term care
 - a. Concepts of cardiopulmonary rehabilitation
 - b. Home care
 - i. Oxygen administration
 - ii. Activities of daily living
 - iii. Equipment care
 - iv. Medicare requirements

REQUIRED TEXTBOOKS AND MATERIALS:

Textbooks to be selected by the 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 919-536-7208 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 10-209.