

RCP 110
INTRODUCTION TO RESPIRATORY CARE

COURSE DESCRIPTION:

Prerequisites: Enrollment in the Respiratory Therapy program

Corequisites: RCP 113, RCP 114, RCP 132

This course introduces the role of the respiratory care practitioner within interprofessional teams and interacting with diverse populations. Topics include medical gas administration, basic patient assessment, infection control, and medical terminology using proper written and oral communication methods to 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, 3. Lab, 3. Semester Hours Credit: 4.

LEARNING OUTCOMES:

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

- I. Fundamentals of Respiratory Care
- II. Assessment of Respiratory disorders
- III. Basic therapeutics
- IV. Infection control
- V. Medical terminology
- VI. Gas exchange and transport

OUTLINE OF INSTRUCTION:

- I. Fundamental of Respiratory Care
 - a. History of Respiratory Care
 - b. Role of the Respiratory Therapist
 - c. Quality and Evidence-based Respiratory Care
 - d. Patient safety, communication, and record keeping
 - e. Principle of infection control
 - f. Ethical and legal implications
 - g. Physical principles of Respiratory Care
- II. Assessment of Respiratory disorders
 - a. Bedside interview techniques
 - b. Medical history
 - c. Physical examination
 - d. Elements of a physician's order
 - e. Use an ABG in patient assessment
 - f. Restrictive versus obstructive lung disease
 - g. Respiratory care plan
- III. Basic therapeutics
 - a. Humidity and bland aerosol therapy
 - i. Indications for humidity therapy
 - ii. Hazards of humidity therapy
 - iii. Theory of deposition of aerosol particles
 - iv. Techniques to mobilize secretions
 - v. Calculation of humidity deficits

- vi. Evaluation of aerosol effectiveness
- vii. Use of humidity and aerosol devices and equipment
- b. Aerosol drug therapy devices and Metered Dose Inhalers
- c. Storage and delivery of medical gases
 - i. Use of cylinders
 - ii. Use of regulators/flowmeters
 - iii. Use of oxygen delivery devices
- d. Medical gas therapy
 - i. Objectives of oxygen therapy
 - ii. Assessment of oxygen need and response
 - iii. Application of high flow and low flow devices
 - iv. Dangers of oxygen administration
 - v. Proper bed positioning
- e. Helium/oxygen therapy
- f. Pulse oximetry
- g. Obtain an ABG

IV. Infection control

- a. Overview of pathogens
- b. Nosocomial infections
- c. Methods of obtaining sterility
- d. Proper hand washing techniques
- e. Universal precautions and the rationale for isolation techniques

V. Medical terminology

VI. Gas exchange and transport

- a. Physiologic math conversion and Algebra manipulation
- b. Physiologic calculations
- c. Use of physiologic graphs and nomograms
- d. Oxygen transport

REQUIRED TEXTBOOKS AND MATERIALS:

To be determined 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.