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 respiratory care profession.  Topics include the role of the respiratory care practitioner, medical gas administration, basic patient assessment, infection control, and medical terminology.  Upon completion, students should be able to demonstrate competence in 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 919-536-7207, ext. 1413 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1209.