RCP 111
THERAPEUTICS AND DIAGNOSTICS

COURSE DESCRIPTION:

Prerequisites: RCP 110 and 132
Corequisites: RCP 145

This course is a continuation of RCP 110. Emphasis is on entry-level therapeutic and diagnostic procedures used in respiratory care. Upon completion, students should be able to demonstrate competence in concepts and procedures through written and laboratory evaluations. Concepts in respiratory pharmacology are covered. Course Hours Per Week: Class, 4. Lab, 3. Semester Hours Credit, 5.

LEARNING OUTCOMES:

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

a. Obtain and interpret an EKG.
b. Deliver breathing exercise treatments.
c. Determine need for home oxygen administration.
d. Perform airway suction.
e. Use manual resuscitation devices and equipment.
f. Use artificial airways devices and equipment.
g. Administer medicated aerosol therapy.
h. Discuss respiratory drug action within the lung.
i. Determine appropriate airway devices for patient use.
j. Discuss the use mechanical of ventilation for patient care.

OUTLINE OF INSTRUCTION:

I. EKG interpretation
   A. Set up leads for a 12 lead EKG
   B. Recognize pertinent EKG patterns
   C. Discuss PQRST Complex and heart physiology

II. Breathing exercise treatments
   A. Concepts hyperinflation
   B. Choosing the right modality
   C. Hazards and objectives of various modalities
   D. Charting results

III. Home oxygen administration

A. Work of breathing
B. Concepts of respiratory rehab and home care
C. Methods of oxygen administration in the home setting
D. Activities of daily living
E. Care of respiratory equipment in the home
F. Medicare requirements for home oxygen

IV. Airway suction
A. Review of pertinent anatomy
B. Perform ETS
C. Describe the proper technique for NTS
D. Obtain a sputum sample for analysis
E. Describe the hazards and objective of suctioning

V. Manual resuscitation devices and equipment
A. Characteristics of good devices
B. Application of devices

VI. Artificial airway devices and equipment
A. Use of EOA
B. Use of nasal tracheal tubes
C. Use of specialized endotracheal tubes
D. Objectives and hazards of airway devices
E. Use oral and nasal devices

VII. Medicated aerosol therapy
A. Indications for medicated aerosol therapy
B. Theory of bronchodilation
C. Techniques to administration,
D. Calculation of drug dosages for children
E. Evaluation of aerosol effectiveness, hazards

VIII. Respiratory drug action within the lung
A. Receptor theory
B. Use of the PDR
C. Review of popular respiratory drugs

IX. Appropriate airway devices for patient use
A. Sizing airways
B. Types of airways and their specific use
C. Care of airways

X. Use of mechanical ventilation for patient care
A. Objectives and hazards

B. Patient response to mechanical ventilation
C. Introduction to ventilation: IPPB

REQUIRED TEXTBOOKS AND MATERIALS:

Textbook to be 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.