RCP 114
C-P ANATOMY & PHYSIOLOGY

COURSE DESCRIPTION:

Prerequisites: (Q U R O O P H Q W L Q 5 H V S L U D W R U \ 7 K H U D S \ 3 U R J U D P
Corequisites: 5 & 3 5 & 3 5 & 3

This course provides a concentrated study of cardiopulmonary anatomy and physiology essential to the practice of resp tPer Week: Class, 3. Lab, 0. Semester Hours Credit: 3.

LEARNING OUTCOMES:

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

I. The respiratory system

II.

III. Ventilation
   a. Mechanics of ventilation
   b. Mechanics of exhalation
   c. Work of breathing
   d. Distribution of ventilation
   e. Efficiency and effectiveness of ventilation

IV. Gas exchange and transport
   a. Diffusion
   b. Normal variations from ideal gas exchange
   c. Oxygen transport
   d. Carbon dioxide transport
   e. Abnormalities of gas exchange and transport

V. Solutions, body fluids, and electrolytes
   a. Solutions
   b. Electrolytic activity and acid-base balance
   c. Body fluids and electrolytes

VI. Acid-base balance
   a. Hydrogen ion regulation in body fluids
   b. Acid excretion
   c. Acid-base disturbances
   d. Clinical acid-base states

VII. The regulations of breathing
   a. Medullary respiratory center
   b. Pontine respiratory center
   c. Reflex control of breathing
   d. Chemical control of breathing
   e. Ventilatory response to exercise
   f. Abnormal breathing patterns
   g. Carbon dioxide and cerebral blood flow

REQUIRED TEXTBOOKS AND MATERIALS: