

RCP 112
PATIENT MANAGEMENT

COURSE DESCRIPTION:

Prerequisites: RCP 111

Corequisites: RCP 155

This course provides entry-level skills in adult and pediatric mechanical ventilation as well as respiratory care procedures in traditional and alternative settings. Emphasis is on therapeutic modalities and physiological effects of cardiopulmonary rehabilitation, home care, mechanical ventilation, and monitoring. 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 will be able to:

- a. Describe positive and negative pressure ventilation.
- b. Perform adult and pediatric mechanical ventilation techniques.
- c. Perform bedside pulmonary physiologic calculations.
- d. Relate hemodynamic monitoring to patient management.
- e. Describe methods of weaning a patient from pressure ventilation.

OUTLINE OF INSTRUCTION:

- I. Positive and negative pressure ventilation
 - A. Indication for mechanical ventilation
 - B. The "ideal" mechanical ventilator
 - C. Mechanical ventilator classification
 - D. Elements and controls of mechanical ventilators
 - E. Set-up of circuits and their maintenance
 - F. Ventilator patient
- II. Adult and pediatric ventilation techniques
 - A. Indications
 - B. Complications
 - C. Initial patient parameters and machine set-up
 - D. Patient and machine monitoring
 - E. Assessment of patient response to ventilation
- III. Bedside pulmonary physiologic calculations

- A. Deadspace
- B. Shunt
- C. Cardiac output
- D. Resistance
- E. Compliance
- F. Bedside pulmonary function maneuvers
 - 1) VC
 - 2) FEF
 - 3) Vt
 - 4) Minute Ventilation
 - 5) MVV
 - 6) MIP
 - 7) Peak flowrates

IV. Hemodynamic monitoring

- A. Indications
- B. Complications
- C. Pulmonary artery catheter
- D. Transducers
- E. Vascular waveforms and pressures

V. Methods of weaning from pressure ventilation

- A. Function assessment of the patient's organ systems
- B. Spontaneous function assessment of the ventilatory system
- C. Implementation of weaning parameters appropriately

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.