Outline of Instruction

Division: Health Sciences
Area: Respiratory Therapy

Course Number: RTH 110
Course Name: Respiratory Care Techniques II

Prerequisite: Successful completion of RTH 100
Corequisite: RTH 104

Hours Required: Class: 60 Lab: 45 Credits: 5

Course Description/Purpose

This classroom and laboratory course continues the introduction to basic duties of respiratory care practitioners. Emphasis will be placed on patient assessment, basic therapy modalities, airway management, cardiopulmonary diagnostic equipment and techniques, and an introduction to continuous mechanical ventilation.

Major Units

1. Bedside Assessment & Incentive Spirometry
2. CPT, Medication Aerosols, & Bag-Valve-Mask Devices
3. Artificial Airways & Airway Maintenance
4. Intubation/Extubation & ABG Sampling & Processing
5. Basic Pulmonary Function Testing
6. Electrocardiology
7. Introduction to Mechanical Ventilator Theory

Laboratory Assignments:

1. Patient Assessment I
2. Patient Assessment II
3. Patient Assessment III, IPPB, & Incentive Spirometry
4. Medical Aerosols
5. Chest Physiotherapy & Bag-Valve-Mask Devices
6. Artificial Airways I
7. Artificial Airways II & Suctioning
8. Airway Care
9. Radial Artery Blood Sampling
10. PFTs via Waterseal Spirometry
11. Ventilator Based PFTs
12. Electrocardiograms
13. Introduction to Ventilator Theory
14. Basic Volume Control Ventilation
Educational/Course Outcomes   RTH 110

Student learning will be assessed by a variety of methods, including, but not limited to, quizzes and tests, laboratory/clinical exercises and examinations, presentations, simulations, homework assignments, and instructor observations.

**Cognitive**

Each student will be expected to:

- list the physiologic effects of and the indications, contraindications, and hazards for the common hyperinflation and chest physical therapies.
- discuss theory of operation and demonstrate proper usage of manual ventilation bags, common positive pressure hyperinflation devices, and incentive spirometers.
- list the major types of artificial airways and the indications, contraindications, and hazards of each type.
- discuss theory of and demonstrate basic skills in arterial puncture and blood gas sample processing.
- discuss pulmonary function testing procedures, and spirometry values indicating normal, obstructive or restrictive ventilatory patterns.

**Performance**

Each student will be expected to:

- demonstrate skills in the delivery of aerosolized medications by small volume nebulizers.
- demonstrate and discuss procedures for airway care including suctioning, assisting intubation and extubation, and airway maintenance.
- demonstrate basic chest physical therapy skills including the use of adjunctive equipment.
- demonstrate an ability to safely perform and provide basic interpretation of presented diagnostic techniques and results: respiratory physical assessment, radial artery blood sampling, screening spirometry, and electrocardiography.