Outline of Instruction

Division: Health Sciences  Area: Respiratory Therapy
Course Number: RTH 100  Course Name: Respiratory Care Techniques I
Prerequisite: Acceptance into the Respiratory Therapy program.
Corequisite:

Hours Required:  
Class: 90  Lab: 60  Credits: 8

Course Description/Purpose

This classroom and laboratory course is an introduction to the duties and responsibilities of respiratory care practitioners. Topics covered include a review of physical science, cardiopulmonary anatomy and physiology, cardiopulmonary resuscitation, basic nursing skills, medical gas and aerosol administration, employee health and safety, pulmonary medications, and an orientation to clinical sites.

Major Units

1. Cardiopulmonary Anatomy
2. Cardiopulmonary Physiology I
3. Cardiopulmonary Physiology II
4. Medical Gases
5. Humidity & Aerosol Therapy
6. Oxygen Therapy
7. Health & Safety
8. Pharmacology I
9. Pharmacology II

Laboratory Assignments:

1. Nursing Arts
2. Pulmonary Function Testing
3. Microcomputer Usage & Acid-Base Interpretation
4. Oxygen Analyzers & Pulse Oximeters
5. Cylinders & Regulators
6. Blenders & Flowmeters
7. Humidification Devices
8. Nebulizers
9. O₂ Administration Devices
10. Equipment Processing
11. Laboratory Practical Exam
12. Clinical Matriculation
13-16. Hospitals As Assigned
Educational/Course Outcomes  RTH 100

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

**Cognitive**

Each student will be expected to:

- define and use common medical terminology and abbreviations as assigned.
- discuss the physical laws concerning states of matter, fluids, temperature, pressure, volume, and humidity and how these laws relate to respiratory therapy equipment.
- discuss the principles of operation including indications, contraindications, safety features, and hazards for the following: oxygen systems, cylinders, regulators, flowmeters, nebulizers, humidifiers, gas and aerosol administration devices, oxygen analyzers and blenders.
- identify the basic anatomical structures of the cardiopulmonary system.
- discuss the basic physiological processes that are necessary for successful internal and external respiration.
- discuss and demonstrate the proper procedure for disinfecting and/or sterilizing various respiratory therapy equipment.
- discuss the indications, contraindications, side effects, and dosages of major bronchopulmonary drugs administered by respiratory therapy personnel.

**Performance**

Each student will be expected to:

- successfully complete the basic life support procedures for cardiopulmonary resuscitation as outlined by the American Red Cross or the American Heart Association.
- demonstrate the proper selection, use and/or handling of the above respiratory therapy equipment.
- demonstrate appropriate procedures for the following: handwashing, use of a stethoscope, pulse, blood pressure, respiratory rate, hospital isolation and preparing bronchopulmonary medications.
- independently operate microcomputers to use assigned respiratory therapy computer assisted instruction and computer based testing programs.