Course Information
Division: Health Sciences
Contact Hours: 6
Theory: 55
Lab Hours: 36
Total Credits: 4

Prerequisites: RTH 102B – Pharmacology for Respiratory Therapists II
RTH 110 – Respiratory Care Techniques II
RTH 111 – Respiratory Care Clinical Practice I
RTH 116 – Cardiopulmonary Pathophysiology

Co-requisite: RTH 121 – Respiratory Care Clinical Practice II

Course Description
Mechanical ventilation topics are continued in this classroom and laboratory course. Topics include various brands of ventilators and their modes, cycling mechanisms, alarms and features. In addition, adjustments needed for adult patients with oxygenation, ventilation and acid-base pulmonary management challenges will be presented.

This course is a required core course for students pursuing an Associate of Applied Science - Respiratory Therapy

Program Outcomes Addressed by this Course:
Upon successful completion of this course, students should be able to meet the program outcomes listed below:

A. Demonstrate the ability to gather, comprehend, evaluate, apply, and problem solve using empirical information relevant to his/her role as a competent Registered Respiratory Therapist.
B. Demonstrate the ability to perform the clinical and technical skills relevant to his/her role as a Registered Respiratory Therapist.

Course Outcomes
In order to evidence success in this course, the students will be able to:

1. Define terms and acronyms associated with mechanical ventilation.  
   *Applies To Program Outcome*
   A. Demonstrate the ability to gather, comprehend, evaluate, apply, and problem solve using empirical information relevant to his/her role as a competent Registered Respiratory Therapist.

2. List indications, contraindications, hazards, and physiologic effects of mechanical ventilation.  
   *Applies To Program Outcome*
   A. Demonstrate the ability to gather, comprehend, evaluate, apply, and problem solve using empirical information relevant to his/her role as a competent Registered Respiratory Therapist.
Course Outcome Summary
Required Program Core Course
RTH 120 – Respiratory Care Techniques III

3. Compare, contrast, and differentiate modes of mechanical ventilation by description, ventilator
   scalars, relations between pressure, flow, time and volume, and intended use.
   **Applies To Program Outcome**
   A. Demonstrate the ability to gather, comprehend, evaluate, apply, and problem solve
      using empirical information relevant to his/her role as a competent Registered
      Respiratory Therapist.

4. Initiate appropriate mechanical ventilator settings and adjunctive therapies, order modifications based
   on patient presentation, and discontinue as applicable.
   **Applies To Program Outcome**
   A. Demonstrate the ability to gather, comprehend, evaluate, apply, and problem solve
      using empirical information relevant to his/her role as a competent Registered
      Respiratory Therapist.
   B. Demonstrate the ability to perform the clinical and technical skills relevant to his/her
      role as a Registered Respiratory Therapist.

5. Calculate/analyze mechanical ventilation measurements and waveforms/graphics/loops to identify
   normal/abnormal patient conditions.
   **Applies To Program Outcome**
   A. Demonstrate the ability to gather, comprehend, evaluate, apply, and problem solve
      using empirical information relevant to his/her role as a competent Registered
      Respiratory Therapist.
   B. Demonstrate the ability to perform the clinical and technical skills relevant to his/her
      role as a Registered Respiratory Therapist.

6. Assemble, troubleshoot, and perform simulated patient-ventilator systems checks on a variety of
   modern ventilators.
   **Applies To Program Outcome**
   B. Demonstrate the ability to perform the clinical and technical skills relevant to his/her role
      as a Registered Respiratory Therapist.

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