

**J. Sargeant Reynolds Community College
Course Content Summary**

Course Prefix and Number: RTH 131

Credits: 4

Course Title: Respiratory Care Theory and Procedures I

Course Description: Presents theory of equipment and procedures and related concepts used for patients requiring general acute and critical cardiopulmonary care. Prerequisites: Successful completion of all curriculum courses offered during the first semester of the AAS degree in Respiratory Therapy. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

General Course Purpose: This course teaches students equipment theory, use, and application in preparation for providing respiratory care services to patients during clinical rotations.

Course Prerequisites and Co-requisites:

Prerequisites: Successful completion of all curriculum courses offered during the first semester of the AAS degree in Respiratory Therapy.

Student Learning Outcomes:

Upon completing the course, the student will be able to

- a. Discuss the planning, implementation, and evaluation of Hyperinflation Therapy;
- b. Demonstrate the ability to initiate, monitor, modify, and discontinue the use of any Hyperinflation Therapy;
- c. Discuss the anatomy of how airway clearance mechanisms work and what disease/disorders impair their function;
- d. Assess the need for Bronchial Hygiene Therapy;
- e. Initiate, monitor, modify, and discontinue the use of airway clearance mechanisms;
- f. Assess the need for artificial airways and the proper selection;
- g. Demonstrate the ability to insert, monitor, and maintain an artificial airway;
- h. Demonstrate the ability to properly discontinue an artificial airway;
- i. Assess the need for suctioning, demonstrate the proper technique, and identify and respond to complications;
- j. Discuss the concept of respiratory failure;
- k. Assess the need for mechanical ventilation; and
- l. Introduce the modes of mechanical ventilation.

Major Topics to Be Included:

- a. Airway Care
- b. Fluidics
- c. Technical Aspects of Mechanical Ventilators
- d. Continuous Mechanical Ventilation
- e. Positive End-Expiratory Pressure
- f. High-Frequency Ventilation
- g. Ventilatory Support of the Neonatal and Pediatric Patient

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