

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

Course Prefix and Number: RTH 102

Credits: 3

Course Title: Integrated Sciences for Respiratory Care

Course Description (including lecture hours, lab hours, and total contacts)

Integrates the concepts of mathematics, chemistry, physics, microbiology, and computer technology as these sciences apply to the practices of respiratory care. Lecture 3 hours per week.

General Course Purpose

This course teaches students how basic principles of math and science can be used to identify and modify treatment options and care for patients with respiratory diseases and disorders.

Course Prerequisites/Corequisites (*Entry-level competencies **required** for enrollment*)

There are no prerequisites/corequisites required for this course.

Course Objectives (Each item should complete the following sentence.)

Upon completing the course, the student will be able to:

- a. Review the basic scientific principles, definitions and concepts applicable to respiratory care.
- b. Apply the basic concepts of chemistry to the practice of respiratory care.
- c. Apply the basic mathematical concepts used in the practice of respiratory care.
- d. Apply the basic concepts of fluid physics to the practice of respiratory care.
- e. Related the basic concepts of microbiology to the practice of respiratory care.
- f. Introduce the concepts and skills associated with computer technology in respiratory care.

Major Topics to be Included

Metric System
Chemistry
General Principles of Gas Physics
Fluid/Electrolytes
Microbiology

Effective Date of Course Content Summary (Month, Date Year): November 13, 2008