

## **NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY RTH 102 – INTEGRATED SCIENCES FOR RESPIRATORY (3 CR.)**

### **Course Description**

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 is offered in the first semester of the program and is designed for beginning respiratory therapy students. The purpose of this course is to integrate basic sciences within the framework of a professional program in respiratory therapy

### **Course Prerequisites/Corequisites**

Prerequisites: BIO 141 (NAS 161), BIO 142 (NAS 162) and HLT 140 or equivalent.

### **Course Objectives**

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

- a) Demonstrate an understanding the fundamental mathematical skills used in performing calculations associated with respiratory care and respiratory pharmacology.
- b) Apply algebraic principles to physiologic and clinical computations.
- c) Relate basic concepts of chemistry to clinical respiratory care and pulmonary physiology.
- d) Explain various physical laws, principles, and theories associated with respiratory care.
- e) Demonstrate a fundamental understanding of certain principles of microbiology as they relate to respiratory care.

### **Major Topics to be Included**

- a) Mathematics
- b) Physics
- c) Chemistry
- d) Microbiology
- e) Drug Dosages