

# RESPIRATORY CARE (RET)

## **RET 1007 Respiratory Pharmacology (2 Credits)**

This course discusses the history of pharmacology, regulatory agencies, and regulations concerning the use of drugs. Drug action, absorption, distribution, and use in the human body. Emphasis will be on respiratory drugs, cardiac drugs, polysomnography, and related drugs the respiratory therapist is exposed to in the clinical setting.

## **RET 1025C Principles of Respiratory Care (4 Credits)**

This is a lecture/laboratory course for the beginning respiratory care student. An introduction to respiratory care, the history of the profession, principles of patient safety, computer applications in respiratory care, ethical and legal implications of health care, patient education and health promotion, pulmonary rehabilitation, physical principles of respiratory care, principles of infection control, patient assessment, analysis and monitoring of gas exchange, HIV/blood-borne pathogens, and respiratory care in alternative settings are topics discussed in this course. A review of physics and chemistry for respiratory care will also be covered in this course.

## **RET 1265C Principles of Mechanical Ventilation (4 Credits)**

This is a lecture/laboratory course designed to introduce the student to the mechanical ventilation of the patient and the equipment used in continuous and intermittent ventilation. Course content includes establishing the need for mechanical ventilation, selecting the ventilator mode, initial ventilator settings, patient monitoring in mechanical ventilation, therapeutic interventions, effects and complications of mechanical ventilation, and discontinuation from mechanical ventilation. Airway management and weaning techniques will also be reviewed.

## **RET 1274C Clinical Care Techniques (4 Credits)**

This is a lecture/laboratory course designed to present basic respiratory care principles and skills necessary to perform respiratory care in preparation for the first clinical rotation. Topics include storage and delivery of medical gases, indications, and hazards of medical gas therapy, humidity, and bland aerosol therapy, aerosol drug therapy, airway pharmacology, airway management, bronchial hygiene therapy, non-invasive ventilation, and lung expansion therapy.

## **RET 1295 Chest Medicine (3 Credits)**

This course introduces the respiratory care student to the nature and causes of cardiopulmonary diseases. The etiology, clinical manifestation, pathogenesis, laboratory data, diagnostic imaging, and treatment for major chronic and acute cardiopulmonary disease entities will be presented. Disease types include obstructive and restrictive lung diseases, inflammatory, vascular, and pleural diseases, cancer and related lung masses, and infection of the lung.

## **RET 1450C Basic Physiological Monitoring (4 Credits)**

This course introduces the respiratory care student to invasive and non-invasive monitoring and diagnostic evaluation of patients. Cardiopulmonary assessment is presented utilizing pulmonary function, chest roentgenography, cardiac monitoring, hemodynamic monitoring, noninvasive respiratory monitoring, and general laboratory tests.

## **RET 1485 Cardiopulmonary Physiology (3 Credits)**

This course covers the anatomy and physiology of the cardiopulmonary, and renal systems. Topics include acid-base relationship, gas perfusion, functions of ventilator control, ventilation/perfusion analysis, oxygen, carbon dioxide transport, sleep physiology, renal failure and its effects on the cardiopulmonary system, and arterial blood gas interpretation.

## **RET 1874L Respiratory Care Clinical I (4 Credits)**

This course provides supervised clinical experiences with an emphasis on fundamental respiratory care procedures such as medical gas therapy, airway management, bronchial hygiene therapy, lung expansion therapy, aerosol drug therapy, and bland aerosol therapy. Students will also be introduced to non-invasive ventilation. The student will perform one 12 hour clinical rotation per week in a health care facility.

## **RET 1875L Respiratory Care Clinical II (4 Credits)**

This course provides supervised clinical experiences with an emphasis on assessment, and care of the critical care patient. The student will gain experience in mechanical ventilator management, invasive and noninvasive hemodynamic monitoring, and airway management. The student will perform one 12 hour clinical rotation per week in a health care facility.

## **RET 2714C Pediatric/Neonatal Respiratory Care (4 Credits)**

This is a lecture/laboratory course designed to present respiratory care of the neonate and pediatric patients. Emphasis on physiology, pulmonary complications, and related general and intensive care procedures. Also included is neonatal transportation and assessment of the sick newborn and child.

## **RET 2876L Respiratory Care Clinical III (4 Credits)**

The student will receive supervised clinical experience emphasizing advanced modes of mechanical ventilation, patient transport, and hemodynamic monitoring. The student also will rotate through the pulmonary function laboratory, cardiac cath lab, and pulmonary rehabilitation. The student will perform one 12 hour clinical rotation per week in a health care facility.

## **RET 2877L Respiratory Care Clinical IV (4 Credits)**

The student will receive supervised clinical experience in adult, pediatric, and neonatal care. During this clinical rotation, students will rotate through the neonatal and pediatric critical care units. Clinical skills will focus on adult and pediatric ventilator management, weaning, extubation, and hemodynamic assessment. The student will perform one 12 hour clinical rotation per week in a health care facility.

## **RET 2930 Respiratory Care Seminar (1 Credit)**

This course is a capstone course dedicated to enhancing the student transition into the workforce. The course will reflect on content learned and measure knowledge against the content matrix on the national credentialing examination.