

# Respiratory Care

## **RC 125            CLINICAL ASSESSMENT & PROCEDURES**

Credit Hours: 1

Prerequisites: Acceptance into the Respiratory Care Program

Students learn to assess physical signs and symptoms relating to respiratory therapy in a laboratory setting. In addition, students begin medical chart interpretation. Procedures in hospital protocol, infection control and patient mobility / body mechanics are studied.

## **RC 200            INTRODUCTION TO RESPIRATORY CARE CLINICAL PRACTICE I**

Credit Hours: 4

Prerequisites: All year-one courses

Corequisites: RC 210

This course combines classroom, laboratory and clinical experience as an introduction to therapeutic modalities and hospital protocol. Basic cardiopulmonary assessment and therapeutic modalities are practiced in a clinical setting. Students are evaluated on affective skills such as communication, ethical behavior and professionalism.

## **RC 210            CARDIOPULMONARY PHYSIOLOGY**

Credit Hours: 3

Prerequisites: All year-one courses

Corequisites: RC 200

A comprehensive study of pulmonary and cardiovascular physiology as it applies to respiratory care. Emphasis is on integrating therapeutic and clinical application of pulmonary function, acid-base balance, neurogenesis and mechanics of ventilation, O<sub>2</sub> and CO<sub>2</sub> transport, ventilation versus perfusion, and hemodynamic relationships as they relate to acute and chronic diseases.

## **RC 220            RESPIRATORY CARE CLINICAL PRACTICE II**

Credit Hours: 6

Prerequisites: RC 200, RC 210

Corequisites: RC 240, RC 260

This course is a continuation of RC 200. Students will complete clinical rotations in therapeutic modalities, surgery, ECG and pediatrics. Students are introduced to the adult intensive care unit and will continue to be evaluated in affective skills. Students will participate in weekly clinical discussions and case study presentations.

## **RC 240            PRINCIPLES OF RESPIRATORY CARE**

Credit Hours: 4

Prerequisites: RC 200, RC 210

Corequisites: RC 220, RC 260

This course is an introduction to basic respiratory care equipment. Theories and procedures will be presented along with a structured laboratory experience to prepare students for those skills required in proper delivery of various basic respiratory therapy modalities, to include aerosol/humidity therapy, oxygen therapy, medical gas therapy, bronchial hygiene, lung expansion therapy and infection control. The student will learn how these modalities are used in the treatment of various cardiopulmonary diseases.

## **RC 260            MECHANICAL VENTILATION I**

Credit Hours: 3

Prerequisites: RC 200, RC 210

Corequisites: RC 220, RC 240

An introduction to the assessment and management of acute and chronic patients who need airway care. Emphasis is upon indications, complications and maintenance of artificial airways and mechanical ventilators. Structured laboratory time is included to apply the theoretical principles of mechanical ventilation.

## **RC 280            RESPIRATORY CARE TRANSITION – ASSOCIATE DEGREE LEVEL**

Credit Hours: 1-3

This transition course is designed to enable the entry-level respiratory care practitioner to achieve advanced placement. Emphasis is upon assessment of theoretical knowledge and laboratory and clinical skills necessary for advanced placement in the respiratory care program.

## **RC 300            RESPIRATORY CARE CLINICAL PRACTICE III**

Credit Hours: 6

Prerequisites: RC 220, RC 240, RC 260, SC 260, RC 350,

Corequisites: RC 310, RC 330, RC 340, RC 360

This course is a continuation of RC 220. Students will complete clinical rotations in diagnostic procedures/monitoring, advanced assessment skills, pulmonary function, adult intensive care and pediatric/neonatal intensive care. Students will participate in weekly clinical discussions and case study presentations and will continue to be evaluated for affective skills.

## **RC 310            MECHANICAL VENTILATION II**

Credit Hours: 4

Prerequisites: RC 220, RC 240, SC 260, RC 260 RC 350

Corequisites: RC 300, RC 330, RC 340, RC 360

This course is a continuation of RC 260. Emphasis is upon the relationship of specific pathophysiologies and the indications, management and discontinuation of

mechanical ventilation. Specific ventilators and their clinical applications are presented and required skills are developed in structured laboratory time.

**RC 330            CARDIOPULMONARY  
DIAGNOSTICS & MONITORING**

Credit Hours: 3

Prerequisites: SC 260, RC 220, RC 240, RC 260, and RC 350

Corequisites: RC 300, RC 310, RC 340, RC 360

An introduction to the more crucial diagnostic procedures required for assessing and monitoring the pulmonary patient. Emphasis is upon arterial blood gas analysis, pulmonary function studies and hemodynamic monitoring, ECG interpretation and nutritional assessment.

**RC 340            NEONATAL & PEDIATRIC  
RESPIRATORY CARE**

Credit Hours: 2

Prerequisites: SC 260, RC 220, RC 240, RC 260, RC 350

Corequisites: RC 300, RC 310, RC 330, RC 360

This course is a comprehensive review of fetal development, physiology and pathophysiology of the newborn, premature infant and the pediatric patient. Applications of various respiratory care modalities are correlated to these varied pathologies.

**RC 350            PULMONARY REHABILITATION  
& HOME CARE**

Credit Hours: 1

Prerequisites: RC 200, RC 210

Corequisites: RC 220, RC 240

This course is a presentation of the methods of care and support for the patient with pulmonary disability. Emphasis is on the teaching of home care therapy, chronic care units, unique equipment needs, review of home care companies and services provided, Medicare/Medicaid reimbursement, special problems encountered and the various therapeutic techniques applied to the chronic pulmonary patient.

**RC 360            ISSUES & TRENDS IN  
RESPIRATORY CARE**

Credit Hours: 1

Prerequisites: SC 260, RC 220, RC 240, RC 260, RC 350

Corequisites: RC 300, RC 310, RC 330, RC 340

Current issues and trends in respiratory care will be investigated and discussed in this course. In addition, students will explore issues in cultural diversity, political advocacy and managed care as it relates to health care.

**RC 380            RESPIRATORY CARE  
TRANSITION –BACHELOR  
DEGREE LEVEL**

Credit Hours: 1-3

This transition course is designed for the advanced-level respiratory care practitioner to achieve advanced placement. Emphasis is upon assessment of theoretical knowledge, laboratory and clinical skills necessary for advanced placement in the respiratory care program.

**RC 382            SPECIAL TOPICS I**

Credit Hours: 1-6

This course is designed to meet the needs of students who have left the NMC Respiratory Care Program for one semester or longer. Emphasis is upon assessment of theoretical knowledge, laboratory and clinical skills necessary for the student to continue to progress in the Respiratory Care Program. Students may be assigned to a clinical, didactic or laboratory experience, if needed, as determined by the instructor's assessment.

**RC 399            INDEPENDENT STUDY IN  
RESPIRATORY CARE**

Credit Hours: 1-3

Prerequisites: Completion of all year two professional courses, or Associate Degree, plus permission of Program Director.

This course is designed to allow students to explore a selected topic in Respiratory Care. A faculty mentor will work with students to create objectives and methods of evaluation. Students will carry out the plan of study.

**RC 400            CLINICAL SPECIALTIES**

Credit Hours: 2 – 6

Prerequisites: Completion of all year two professional courses, or Associate Degree, plus permission of the Director of Clinical Education.

Advanced respiratory care practitioner skills are practiced in an individually designed clinical preceptorship experience.

**RC 470            RESPIRATORY CARE  
RESEARCH**

Credit Hours: 3

Prerequisites: Completion of all year two professional courses, or Associate Degree, and SS360, and SS450; or permission of instructor

The steps of the research process are applied to a selected topic in respiratory care. Students will review current literature and analyze journal articles using evidence based medicine techniques. Using the manuscript guidelines of the professional journal, *Respiratory Care*, students will prepare and submit an article suitable for publication.