

# Respiratory Care

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## Basic Respiratory Care

### RESP 1101 - 3 Credits

Role of the Respiratory Care practitioner. Basic management and maintenance of common Respiratory Care equipment to include applied therapeutic modalities. Major emphasis on oxygen and aerosol administration, arterial blood gas procedures, and pharmacologic administration. Prerequisite: Admission to the Respiratory Care Program or consent of instructor (2 lecture hours, 3 lab hours)

## Intermediate Respiratory Care

### RESP 1102 - 3 Credits

Intermediate procedures for the Respiratory Care practitioner. Theory and practice for cardiac and pulmonary pathology, positive pressure breathing, chest physical therapy, airway care and introductory mechanical ventilation. Prerequisite: Admission to the Respiratory Care Program and Respiratory Care 1101 or consent of instructor (2 lecture hours, 3 lab hours)

## Advanced Respiratory Care

### RESP 1103 - 3 Credits

Advanced study in respiratory intensive care principles. Theory and practice to include management of life-support systems as applied in the emergency and intensive care units. Adult volume and pressure ventilation, monitoring and non-invasive positive pressure procedures. Prerequisite: Admission to the Respiratory Care Program and Respiratory Care 1102 or consent of instructor (2 lecture hours, 3 lab hours)

## Respiratory Assessment and Procedures

### RESP 1105 - 4 Credits

Respiratory Care assessment to include vital sign and breath sound monitoring, oxygen monitoring and administration, universal/standard precautions and isolation procedures, patient and equipment safety standards, patient charting and communication, cardiopulmonary resuscitation (CPR), and concepts in transcultural patient care. Prerequisite: Admission to the Respiratory Care Program or consent of instructor (3 lecture hours, 3 lab hours)

## Clinical Practice I

### RESP 1111 - 4 Credits

Clinical practice in the application of oxygen administration, aerosol and humidity therapy, incentive spirometry, chest physiotherapy, pharmacologic agents, therapeutic evaluation, arterial puncture,

and communication skills with patient and staff. Prerequisite: Admission to the Respiratory Care Program and Respiratory Care 1101, Respiratory Care 1120 and Respiratory Care 1121 or consent of instructor

## **Clinical Practice II**

### **RESP 1112 - 4 Credits**

Clinical practice in the application of non-invasive positive pressure ventilation including continuous and bi-level airway pressure therapy, airway care procedures, and the application of cardiopulmonary life-support. Previous clinical skill procedures included. Prerequisite: Admission to the Respiratory Care Program and Respiratory Care 1111 or equivalent or consent of instructor

## **Respiratory Care Clinical Practice**

### **RESP 1113 - 3 Credits**

Clinical practice of intensive care procedures within hospital emergency rooms, surgical intensive, cardiac care, and respiratory intensive care units. Life support systems, ventilator initiation, weaning, diagnostic monitoring and spirometry included. Prerequisite: Admission to the Respiratory Care Program and Respiratory Care 1112 or equivalent or consent of instructor

## **Appld Cardiopulmonary Anat & Physiology**

### **RESP 1120 - 4 Credits**

Applied cardiopulmonary anatomy and physiology as related to Respiratory Care procedures and clinical practice. Major emphasis on the pulmonary and circulatory systems, ventilation and perfusion, diffusion and transport, pulmonary function and hemodynamic measurements, central nervous system control, and fetal respiratory development. Prerequisite: Admission to the Respiratory Care Program or consent of instructor (3 lecture hours, 2 lab hours)

## **Applied Science for Respiratory Care**

### **RESP 1121 - 4 Credits**

Applied science concepts as related to Respiratory Care procedures and clinical practice. Concepts to include metabolic and respiratory acid-base balance, respiratory and cardiac formulas, blood gas data as applied to patient care, and case study interpretation and assessment. Prerequisite: Admission to Respiratory Care Program or consent of instructor (3 lecture hours, 2 lab hours)

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## Independent Study - Individualized

### RESP 1840 - 1-4 Credits

Exploration and analysis of topics within the discipline to meet individual student-defined course description, goals, objectives, topical outline and methods of evaluation in coordination with and approved by the instructor. This course may be taken four times for credit as long as different topics are selected. Prerequisite: Admission to the Respiratory Care Program and consent of instructor (2 to 8 lab hours)

## Adv Life Support, Monitoring & Trends

### RESP 2201 - 3 Credits

Advanced concepts in life support and patient monitoring to include current ventilator modes and management, hemodynamic monitoring, ventilator graphics and polysomnography. Prerequisite: Admission to the Respiratory Care Program and Respiratory Care 1103 or consent of instructor (2 lecture hours, 2 lab hours)

## Pulmonary Function Testing

### RESP 2202 - 3 Credits

Simple and advanced spirometry to include forced vital capacity measurements, maximum voluntary ventilation, flow-volume loop procedures, before and after bronchodilator studies, carbon monoxide diffusion, nitrogen washout, exercise testing, and other pulmonary diagnostic tests. Prerequisite: Admission to the Respiratory Care Program and Respiratory Care 1103 or equivalent or consent of instructor (2 lecture hours, 2 lab hours)

## Neonatal/Pediatric Intensive Resp Care

### RESP 2205 - 3 Credits

Advanced study in neonatal and pediatric respiratory intensive care principles. Theory and practice to include airway care, ventilator system management, and physiologic monitoring as applied to infants and children in the emergency and specialty intensive care units. Neonatal and pediatric advanced life-support included. Prerequisite: Admission to the Respiratory Care Program and Respiratory Care 1103 or consent of instructor (2 lecture hours, 2 lab hours)

## Advanced Intensive Respiratory Care - Ad

### RESP 2206 - 4 Credits

Advanced clinical practice in emergency and adult intensive care units. Procedures to include clinical data evaluation, mechanical ventilation, hemodynamic monitoring, airway and chest X-

ray interpretation, pharmacologic administration, and advanced cardiac life-support. Pulmonary function diagnostics included. Prerequisite: Admission to the Respiratory Care Program and Respiratory Care 1113 or consent of instructor

## **Adv Intensive Respiratory Care-Neonatal**

**RESP 2207 - 3 Credits**

Advanced clinical practice in emergency, neonatal and pediatric intensive care units. Procedures to include data evaluation, ventilatory support, high-risk transport, hemodynamic monitoring, airway and chest X-ray interpretation, and pharmacologic administration. Neonatal and pediatric advanced life-support included. Prerequisite: Admission to the Respiratory Care Program and Respiratory Care 2205 or consent of instructor

## **Respiratory Care Board Review**

**RESP 2250 - 3 Credits**

Comprehensive review and update of Respiratory Care, to include theory and procedures, as well as preparation for the Certified and Registered Respiratory Therapist exams through the National Board for Respiratory Care. (3 lecture hours)

## **Adv Clinical Assessment & Protocol**

**RESP 2280 - 4 Credits**

Advanced clinical assessment of respiratory care patients to include airway and chest X-ray interpretation, the effects of pharmacologic agents in critical care, and the initiation of protocols and clinical practice guidelines. Prerequisite: Admission to the Respiratory Care Program and Respiratory Care 1113 or consent of instructor (3 lecture hours, 2 lab hours)

## **Introduction to Polysomnography**

**RESP 2300 - 3 Credits**

Introduction to the role of the polysomnographic technician. Covers basic patient care, patient assessment, infection control practices, emergency preparedness in the laboratory setting, ethics and professionalism in healthcare, and basic polysomnography testing. Prerequisite: Admission to Respiratory Care-Polysomnography program is required. (3 lecture hours)

## **Polysomnography Anatomy & Physiology**

**RESP 2301 - 3 Credits**

# Respiratory Care

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Applied anatomy and physiology as related to polysomnography procedures and clinical practice. Major emphasis on neurologic, circulatory and pulmonary systems associated with normal and abnormal sleep, risk factors for sleep disorders, assessment for signs and symptoms of sleep disorders, and the morbidity and mortality associated with sleep disorders. Prerequisite: Admission to Respiratory Care-Polysomnography program is required. (3 lecture hours)

## Clinical Practice I

### RESP 2303 - 3 Credits

Clinical Practice in the performance of polysomnography testing. Includes patient assessment for at-risk individuals, pre-testing preparations, sleep disorder testing, procedural protocols, test documentation and results analysis. Prerequisite: Admission to Respiratory Care-Polysomnography program is required.

## Advanced Polysomnography

### RESP 2304 - 3 Credits

Advanced study in polysomnography testing. Theory and practice to include monitoring of test signals, recognition of sleep disorders, implementation and modification of therapeutic interventions, development, implementation and modification of treatment plans, data archiving, equipment maintenance and quality control. Prerequisite: Admission to Respiratory Care-Polysomnography program is required. Respiratory Care 2300, Respiratory Care 2301 and Respiratory Care 2303 with a grade of C or better or equivalent. (3 lecture hours)

## Sleep Study Analysis

### RESP 2305 - 3 Credits

This course provides instruction in the analysis and reporting of sleep study results. Major emphasis on the staging of sleep, identification of sleep disordered breathing events, descriptive and technical issues in sleep studies, and documentation of sleep study results in standardized reports. Prerequisite: Admission to Respiratory Care-Polysomnography program is required. Respiratory Care 2300, Respiratory Care 2301 and Respiratory Care 2303 with a grade of C or better or equivalent. (3 lecture hours)

## Clinical Practice II

### RESP 2306 - 3 Credits

Advanced clinical practice in the performance of polysomnography testing. Includes identification and treatment of special needs patients, sleep staging, sleep event identification and reporting in adult and pediatric patients, signal maintenance and correction, Multiple Sleep Latency Testing

(MSLT) and Maintenance of Wakefulness Testing (MWT) and documentation and implementation, monitoring and optimization of therapy. Prerequisite: Respiratory Care 2303 with a grade of C or better or equivalent.

## **Internship (Career & Technical Ed)yCoop Ed/Internship Occup**

### **RESP 2860 - 1-4 Credits**

Course requires participation in Career and Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. Prerequisite: 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.

## **Internship Advanced (Career & Tech Ed)**

### **RESP 2865 - 1-4 Credits**

Continuation of Internship (Career and Technical Education). Course requires participation in Career & Technical Education work experience with onsite supervision. Internship learning objectives are developed by student and faculty member, with approval of employer, to provide appropriate work-based learning experiences. Credit is earned by working a minimum of 75 clock hours per semester credit hour, up to a maximum of four credits. Prerequisite: 2.0 cumulative grade point average; 12 semester credits earned in a related field of study; students work with Career Services staff to obtain approval of the internship by the Associate Dean from the academic discipline where the student is planning to earn credit.