

# Respiratory Care (RC)

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## Courses

### **RC 125 Beginning Principles of Respiratory Care\* (4 Hours)**

**Prerequisites:** Admission to the respiratory care program

This is an introduction to the basic therapeutic modalities used in respiratory care, including patient safety and comfort considerations, infection control and standard precautions, medical gas delivery, humidity and aerosol therapy, basic respiratory pharmacology, secretion clearance techniques and lung expansion therapy. Emphasis is on patient assessment, clinical application of therapies, therapy evaluation and communication techniques. The roles of respiratory care in the health care system and basic respiratory care service scope, organization and operation are also introduced. Students will have the opportunity to work with patients after two to three weeks of introductory lecture and lab demonstration and practice. Enrollment in this course requires that you be current in payment of a professional liability fee of \$16.00. This fee is required once per calendar year based on enrollment in selected courses and must be in place prior to the start of classes. Students will be notified via their JCCC student email account if they are required to pay a \$16 fee. 6 hrs. lecture, 16 hrs. lab/wk. Summer.

### **RC 130 Respiratory Care Equipment\* (4 Hours)**

**Prerequisites:** Admission to the respiratory care program

This course is an introduction to basic respiratory care equipment. The operation, function, calibration, troubleshooting and maintenance for oxygen administration devices, aerosol generators, humidifiers and hyperinflation devices will be addressed. Medical gas production and storage will also be addressed. 6 hrs. lecture, 8 hrs. lab/wk. Summer.

### **RC 135 Cardiopulmonary Medicine I\* (1 Hour)**

**Prerequisites:** Admission to the respiratory care program

This is the first of three courses that provide a detailed review of the respiratory and cardiac system anatomy and physiology and the clinical implications of normal and abnormal function. 2 hrs./wk. Summer.

### **RC 220 Cardiopulmonary Physiology\* (2 Hours)**

**Prerequisites:** Successful completion of the summer sequence of respiratory care courses

This is a comprehensive study of the physiology and pathophysiology of the pulmonary, cardiovascular and renal systems as they relate to respiratory care. 2 hrs./wk. Fall.

### **RC 230 Clinical Topics and Procedures I\* (4 Hours)**

**Prerequisites:** Successful completion of the summer sequence of respiratory care courses

This course supplements the fall clinical experiences. Concepts, techniques and procedures learned in the summer semester are reinforced. The student will develop new understandings and skills in the acute care, basic emergency care and introductory-level critical care settings. Emphasis will be on arterial blood gas procurement and analysis, cardiac rhythm assessment and management, airway equipment and management procedures, patient management of obstructive lung disorders, perioperative care and chest trauma. In addition, basic mechanical ventilation concepts and techniques will be addressed as they relate to physiologic effects, ventilator commitment, management and basic troubleshooting. 3 hrs. lecture, 3 hrs. lab/wk. Fall.

### **RC 231 Clinical Topics and Procedures II\* (4 Hours)**

**Prerequisites:** Successful completion of the fall sequence of respiratory care courses

This course supplements the spring clinical experiences. Concepts, techniques and procedures learned in the fall semester are reinforced. The student will refine understandings of and skills in the acute care, basic emergency care and critical care settings. Emphasis will be on ventilator management of patients with specific lung insults, neurological compromise and cardiac problems. Advanced mechanical ventilation concepts and techniques will be addressed as they relate to physiologic effects, management and troubleshooting. Home care, pulmonary rehabilitation, physician-assisted procedures, cardiopulmonary stress testing, patient case management and department management will be addressed. 3 hrs. lecture, 3 hrs. lab/wk. Spring.

### **RC 233 Respiratory Care of Children\* (2 Hours)**

**Prerequisites:** RC 230

The focus will be on the respiratory care of neonatal and pediatric patients, with emphasis on the management of cardiopulmonary disease states unique to children. Information will be based on developmental anatomy and physiology, pathology, diagnostic/laboratory assessments, and associated patient management in the acute, critical, emergency care, transport and home care settings. 2 hrs./wk. Spring.

### **RC 235 Cardiopulmonary Medicine II\* (2 Hours)**

**Prerequisites:** Successful completion of the summer sequence of respiratory care courses

This is the second in a series of three courses that provide a detailed review of the physical and diagnostic assessments of the cardiopulmonary patient and the related clinical implications of the assessment finding. 2 hrs. lecture/wk. Fall.

**RC 236 Cardiopulmonary Medicine III\* (2 Hours)**

**Prerequisites:** Successful completion of the fall sequence of respiratory care courses

This is the third in a series of three courses that provide a detailed review of pulmonary disorders, their pathology and their management. 2 hrs. lecture/wk. Spring.

**RC 240 Cardiopulmonary Pharmacology\* (2 Hours)**

**Prerequisites:** Successful completion of the summer sequence of respiratory care courses

This course acquaints the student with general principles of pharmacology and provides a comprehensive review of all drugs and drug groups that are either administered by respiratory-care practitioners or play an integral part in the management of patients they may encounter. Emphasis is on the clinical application of pharmacological agents, their therapeutic effects, mechanism of action and adverse effects, rather than the biochemistry involved. 2 hrs. lecture/wk. Fall.

**RC 271 Clinical Practice I\* (6 Hours)**

**Prerequisites:** Successful completion of the summer sequence of respiratory care courses

This course is the clinical application of respiratory care therapeutic and diagnostic procedures. Students will have the opportunity to work with patients under close supervision to further develop their skill and understanding of basic respiratory care procedures for adults and children. The course objectives progress throughout the semester to involve the student initially in basic care of the less critically ill patient. As their comfort level and exposures progress, students are allowed to work with the more critically ill patients. Enrollment in this course requires that you be current in payment of a professional liability fee of \$16.00. This fee is required once per calendar year based on enrollment in selected courses and must be in place prior to the start of classes. Students will be notified via their JCCC student email account if they are required to pay a \$16 fee. 24 hrs./wk. Fall.

**RC 272 Clinical Practice II\* (6 Hours)**

**Prerequisites:** Successful completion of the fall sequence of respiratory care courses

This course is the clinical application of respiratory care therapeutic and diagnostic procedures. Students will have the opportunity to work with patients under close supervision to further develop their skill and understanding of critical respiratory care procedures for adults and children. Students will also be involved in specialty activities to include physician rounds, pulmonary rehabilitation, home care, and pulmonary function. Enrollment in this course requires that you be current in payment of a professional liability fee of \$16.00. This fee is required once per calendar year based on enrollment in selected courses and must be in place prior to the start of classes. Students will be notified via their JCCC student email account if they are required to pay a \$16 fee. 24 hrs./wk. Spring.