Respiratory Care, A.A.S.

The respiratory therapist is involved in a variety of lifesaving and life-supporting situations. Respiratory therapists treat patients ranging in age from newborns to senior citizens in the prevention, treatment, management and rehabilitation of lung problems. Employment is typically in hospitals but is available in several other health delivery venues. The health care needs of an aging population will play a role in the future of respiratory care.

JCCC's associate of applied science program is accredited by the Commission on Accreditation for Respiratory Care (CoARC www.coarc.com (http://www.coarc.com)). Graduates are eligible to take the National Board for Respiratory Care examinations for both the certified (CRT) and registered (RRT) respiratory therapist.

Certain courses within this program require a professional liability insurance fee. Students will be notified via their JCCC student e-mail account if they are required to pay a $16 fee. The dollar amount for fees is subject to change.

This is a selective admission program with limited enrollment. Prospective students are encouraged to visit the program website (http://www.jccc.edu/respiratorycare) or contact JCCC program personnel for additional information and application materials at 913-469-2583.

Note: Metropolitan Community College students should seek specific counsel from the JCCC program personnel for the appropriate course plan and numbers.

Metropolitan Community College students should refer to Cooperative Program Information (http://www.jccc.edu/cooperative).

Students must "pass" all clinical courses and maintain a grade of "C" or higher in all non-clinical courses to remain in the program.

(Major Code 237A; State CIP Code 51.0908)

- Respiratory Care (http://www.jccc.edu/respiratorycare)

Summer

ENGL 121	Composition I* (This prerequisite course must be completed before the clinic-year. Not completing the course clinic-year will delay credentialing eligibility.)	3
Social Science/Economics Elective ^		3
Total Hours		6

^ Social Science/Economics Elective (http://catalog.jccc.edu/fall/degreecertificates/electives/social-sci-econ-aas)

First Semester

BIOL 140	Human Anatomy (This prerequisite course must be completed before the clinic-year. Not completing the course clinic-year will delay credentialing eligibility.)	4
CHEM 122	Principles of Chemistry* (This prerequisite course must be completed before the clinic-year. Not completing the course clinic-year will delay credentialing eligibility.)	5
MATH 116	Intermediate Algebra* (This prerequisite course must be completed before the clinic-year. Not completing the course clinic-year will delay credentialing eligibility.)	3
or MATH 171	College Algebra*	
Humanities/Art Elective ^		3
Total Hours		15

^ Humanities/Art Elective (http://catalog.jccc.edu/fall/degreecertificates/electives/humanities-aas)

Second Semester

BIOL 225	Human Physiology* (This prerequisite course must be completed before the clinic-year. Not completing the course clinic-year will delay credentialing eligibility.)	4
BIOL 230	Microbiology* (This prerequisite course must be completed before the clinic-year. Not completing the course clinic-year will delay credentialing eligibility.)	3
BIOL 231	Microbiology Lab*	2
Note: BIOL 231 is optional but strongly suggested.		
EMS 121	CPR I - Basic Life Support for Healthcare Provider	1
HC 101	Introduction to Health Care Delivery	3

Note: HC 101 is not a required course for the degree but is strongly encouraged. See the program application packet for details on how this course may be used to meet clinic-year eligibility requirements.

Communications Elective ^	3
Total Hours	16

^ Communications Elective (http://catalog.jccc.edu/fall/degreecertificates/electives/communications-aas)

Summer (clinic-year)

RC 125	Beginning Principles of Respiratory Care*	4
RC 130	Respiratory Care Equipment*	4
RC 135	Cardiopulmonary Medicine I*	1
Total Hours		9

Third Semester

RC 220	Cardiopulmonary Physiology*	2
RC 230	Clinical Topics and Procedures I*	4
RC 235	Cardiopulmonary Medicine II*	2
RC 240	Cardiopulmonary Pharmacology*	2
RC 271	Clinical Practice I*	6
Total Hours		16

Fourth Semester

RC 231	Clinical Topics and Procedures II*	4
RC 233	Respiratory Care of Children*	2
RC 236	Cardiopulmonary Medicine III*	2
RC 272	Clinical Practice II*	6
Total Hours		14

Total Program Hours: 71-73
With HC Elective Course: 74-76

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.