

Trinity Hospital / Olive Harvey College
Respiratory Care Program
Associate in Applied Science Degree Program

Prerequisites

Chemistry 100, 121
Math 118, English 101
Biology 116 or Biology 226 & 227
Biology 120 or Health Science 102

College Courses

Comp. Information Systems 120,
Physics 221 or Physical Science 112
Humanities / Diversity Elective
Socio-Cultural Science (Social and Behavior
Science) Elective

Fall 1

RC 114 - Basic Respiratory Care- Theoretical and protocol based applications of, indications for, and assessment of efficacy and patient response to basic respiratory care modalities in the cardiopulmonary compromised patient population. Includes such therapeutic modalities as O₂/gas therapy, aerosol and humidity therapy, bronchial hygiene and hyperinflation therapy. Clinical simulations, tutorials, and writing assignments, as appropriate to the discipline are part of the course. 4 credit hours.

RC 116 - Patient Assessment - Introduction to the role of a respiratory therapist in the hospital setting as a member of the health care team. Includes professional behavior, ethics, legalities, communications, medical terminology, medical charts and cardiopulmonary assessment. Clinical simulations, tutorials, and writing assignments, as appropriate to the discipline are part of the course. 2 credit hours.

RC 117 - Respiratory Pharmacology - Anatomy and physiology of the nervous system as applied to the pharmacodynamics of bronchodilation and the effects various drugs have on the cardiovascular and pulmonary systems is emphasized. Indications, dosages, routes of administration, contraindications, adverse effects and dose calculations will be discussed. Clinical simulations, tutorials, and writing assignments, as appropriate to the discipline are part of the course. 1 credit hour.

RC 118 - Respiratory Microbiology- Applied microbiology and infection control practices as related to the hospital environment and respiratory care modalities and equipment. OSHA, JCAHO infection control practices including screening tests and risk factors as well as understanding of all hospital isolation techniques is presented. Clinical simulations, tutorials, and writing assignments, as appropriate to the discipline are part of the course. 2 credit hours.

RC 119 - Respiratory Care Laboratory I - Introduction to basic equipment: design, function, troubleshooting and care of respiratory therapy devices and circuitry used to deliver therapy, humidity and aerosol therapy, bronchial hygiene, hyperinflation modalities. Professionalism, communication techniques, monitoring will be practiced in conjunction with laboratory simulated hospital procedures and situations. Basic CPR certification and all proficiency testing of clinical procedures will be done. Clinical simulations, tutorials, and writing assignments, as appropriate to the discipline are part of the course. 3 credit hours.

Spring I

RC 115 - Cardiopulmonary / Renal Anatomy and Physiology - Study of cardiac, pulmonary and renal structure and function with emphasis on physiology as applied to the practice of respiratory care. This includes integrated functions of ventilation, respiration, gas transport and acid base regulation. Clinical simulations, tutorials, and writing assignments, as appropriate to the discipline are part of the course. 3 credit hours.

RC 127 - Clinical I - Introduction to the hospital setting and the set-up, maintenance and discontinuation of oxygen; aerosol and humidity therapy; intermittent modalities to include bronchial hygiene and hyperinflation therapies. Clinical simulations, tutorials, and writing assignments, as appropriate to the discipline are part of the course. 3 credit hours.

RC 137 - Advanced Pathology and Clinical Application - Acute and chronic respiratory and cardiac pathology processes and their associated renal complications and compensations: diagnostic testing including arterial blood gases, basic radiographic interpretation, pulmonary function studies, interpretation of laboratory studies, treatment and prevention of disease processes. Clinical simulations, tutorials, and writing assignments, as appropriate to the discipline are part of the course. 3 credit hours.

RC 139 - Respiratory Care Laboratory I I- Continuation of Respiratory Therapy 119. Introduction to hospital specific policies and procedures, continuation of application and practice of respiratory care modalities, now applied to the critically ill patient. Emphasis on airway management, mechanical ventilators, circuitry, mechanical ventilation management and techniques. Comprehensive laboratory competency testing. Clinical cases presented as technical management corollaries. Clinical simulations, tutorials, and writing assignments, as appropriate to the discipline are part of the course. 2 credit hours.

RC 141 - Ventilatory Mechanics I- Theory of basic mechanical ventilation function, methods of ventilation, modes, classification of ventilators, demonstration of basic equipment circuitry. Airway management indications, selection of type, intubation, management assessment, hazards, extubation and troubleshooting the artificial airway will be covered. Clinical simulations, tutorials, and writing assignments, as appropriate to the discipline are part of the course. 3 credit hours.

Summer

RC 129 - Clinical Practice II - Supervised clinical course with an introduction to airway management techniques, basic ventilator care techniques, pediatric respiratory care and refinement of floor therapy skills with acute patients. Clinical simulations, tutorials, and writing assignments, as appropriate to the discipline are part of the course. 2 credit hours.

RC 146 - Ventilatory Mechanics II - Introduction to the theory of mechanical ventilation in the adult patient. selection of ventilator parameters, commitment, maintenance, weaning. In depth presentation, discussion, demonstration of specific adult ventilator systems. CPAP, BiPAP circuits, practice and testing. Clinical simulations, tutorials, and writing assignments, as appropriate to the discipline are part of the course. 3 credit hours.

Fall 2

RC 200 - Respiratory Care Laboratory III- In depth presentation, discussion, demonstration of specific pediatric/neonatal ventilator systems, CPAP circuits, practice and testing. Continuation of adult ventilator practice, practice and integration of other critical care procedures. Clinical simulations, tutorials, and writing assignments, as appropriate to the discipline are part of the course. 2 credit hours.

RC 222 - Clinical III- Supervised clinical course providing advanced airway management skills, advanced ventilator techniques and diagnostic procedures in the hospital setting. Clinical simulations, tutorials, and writing assignments, as appropriate to the discipline are part of the course. 3 credit hours.

RC 225 - Age Specific Care -Introduction to age appropriate considerations of patient education, application of therapeutic modalities and manifestations of cardiopulmonary diseases throughout the human lifespan. This course will also address managed care, case management, patient care plans and alternate sites of care. Clinical simulations, tutorials, and writing assignments, as appropriate to the discipline are part of the course. 3 credit hours.

RC 227 - Critical Care Services- Advanced cardiopulmonary monitoring is presented with emphasis on ECG interpretation, hemodynamic and exhaled gas monitoring and therapeutic interventions. Chest radiograph, CT and MRI interpretation will be introduced. Pharmacological agents that affect the cardiopulmonary, renal, and acid base regulating systems; paralyzing agents, analgesics, sedatives, administration safety, dose ranges, monitoring response to and basic fluid and electrolyte balance will be presented. Clinical simulations, tutorials, and writing assignments, as appropriate to the discipline are part of the course. 4 credit hours.

Spring 2

RC 224 - Clinical IV - Supervised clinical course providing advanced airway management skills, advanced adult ventilatory techniques, neonatal respiratory procedures and advanced cardiopulmonary diagnostic procedures. Exposure to alternate sites of care. Clinical simulations, tutorials, and writing assignments, as appropriate to the discipline are part of the course. 4 credit hours.

RC 230 - Advanced Cardiopulmonary Monitoring - Case studies with PFT's, blood gases, hemodynamic profiles, ECG's and related diagnostic testing will be presented along with related pathophysiological changes of cardiopulmonary diseases. Advanced adult, pediatric, neonatal cardiopulmonary life support will be covered. Clinical simulations, tutorials, and writing assignments, as appropriate to the discipline are part of the course. 3 credit hours.

RC 250 - Cardiopulmonary Rehabilitation and Home Care - Care of patients with chronic cardiopulmonary disease in a sub-acute setting and in their homes. Long-term therapeutic prescriptions, equipment selection, cleaning and asepsis of equipment in the non-acute care setting. Pulmonary rehabilitation goals and programs presented along with adjunct exercises, equipment, and assistive devices. Clinical simulations, tutorials, and writing assignments, as appropriate to the discipline are part of the course. 1 credit hour.

RC 260 - Advanced Specialty Topics - Respiratory care research topics presented, ethics and board examination preparation, computer assisted clinical simulations along with branching logic, latent image practice and mock certification and registry examination preparation and practice. Resume, portfolio and job interview preparation will also be included. Clinical simulations, tutorials, and writing assignments, as appropriate to the discipline are part of the course. 3 credit hours.