

## RES — Respiratory Care

### RES 101 Intro to Respiratory Care 2-3-3

This course includes introduction topics pertinent to entering the respiratory care profession, i.e., medical terminology, ethical issues, and legal issues.

### RES 111 Pathophysiology 2-0-2

**Prerequisites:** RES 101

This course is a study of the general principles and analyses of normal and diseased states. The course will detail the etiology, diagnosis, and treatment of such disease states.

### RES 121 Respiratory Skills I 2-6-4

This course includes a study of basic respiratory therapy procedures and their administration. Skills required to be a Respiratory Care Professional are detailed in this course. Modalities and therapeutic procedures are covered in detail to prepare the student for entry into the clinical setting. The lab portion of this class will require the student to demonstrate adequate knowledge of the procedures covered before entering the healthcare setting.

### RES 131 Respiratory Skills II 3-3-4

**Prerequisites:** RES 121

This course is a study of selected respiratory care procedures and applications. This course will detail the advanced skills required to practice as an advanced Respiratory Care Professional. Modalities and therapeutic procedures are covered in this course to prepare the student to build on the knowledge obtained in Respiratory Skills I.

### RES 141 Respiratory Skills III 2-3-3

**Prerequisites:** RES 246

This course covers mechanical ventilation systems, pediatrics and associated monitors. The course will introduce the student to theory and practice of mechanical ventilation to the acute or chronic pulmonary impaired patient. The theory of operation, classifying the need for mechanical ventilation and managing the care of the pulmonary impaired patient are introduced in this course. The laboratory portion of this class will allow the student to practice and demonstrate proficiency before performing these procedures in the healthcare setting.

### RES 152 Clinical Applications II 0-9-3

This course includes practice of respiratory care procedures in the hospital setting. This healthcare setting course will allow the student, working along side licensed healthcare professionals, to observe daily routines of the Respiratory Care professional and work to become proficient with current assigned therapeutic procedures covered in the laboratory setting. The student will be required to maintain physician contact and skills check-off of all therapeutic procedures covered in this course.

### RES 154 Clinical Applications II 0-12-4

**Prerequisites:** RES 152

This course includes practice of respiratory care procedures in the hospital setting. This healthcare setting course will allow the student, working a long side licensed healthcare professional, to observe daily routines of the Respiratory Care professional and work to become proficient with current assigned therapeutic procedures covered in the laboratory setting. The student will be required to maintain physician contact and skills check off of all therapeutic procedures covered in this course.

### RES 204 Neonatal/Pediatric Care 2-3-3

**Prerequisites:** RES 141

This course focuses on cardiopulmonary physiology, pathology, and management of the newborn and pediatric patient. Development of the cardiopulmonary state of the fetus to changes at birth is detailed. Ventilation techniques of this special population are also addressed, as well as, testing critical thinking skills for emergency intervention on the neonatal and pediatric patient. Disease states common to these patients are also addressed in this course.

### RES 207 Management in Respiratory Care 2-0-2

**Prerequisites:** RES 204

This course is a study of health care management, emphasizing the importance of good planning, decision-making, and organizational skills as they relate to respiratory care.

### RES 220 Hemodynamic Monitoring 1-0-1

**Prerequisites:** RES 111

This course is a study of basic hemodynamic monitoring. As well as laboratory results related to the Respiratory Care Profession. This course will also integrate the basic concepts of Math, Physics, and Chemistry used by Respiratory Care Professionals in their daily practice.

**RES 232 Respiratory Therapeutics 2-0-2****Prerequisites:** RES 121 and RES 101 and RES 246

This course is the study of specialty areas in respiratory care, including rehabilitation. The course will detail the different types of healthcare settings and record keeping the therapist may become involved with, such as, homecare, skilled nursing facilities, rehabilitation units, physician offices, and hospice facilities. Professional organizations and licensure regulations are addressed in this course.

**RES 235 Respiratory Diagnostics 3-3-4****Prerequisites:** RES 101

This course is a study of diagnostic and therapeutic procedures. Students will develop the skills required to assess, diagnose, and manage a patient's airway. It specifically describes the Respiratory Therapist's role in maintaining a patent airway by using lung expansion therapy, bronchial hygiene techniques, and suctioning. The insertion, maintenance, and removal of artificial airways, which include endotracheal tubes and tracheostomy tubes, will be discussed in detail.

**RES 236 Cardiopulmonary Diagnostics 3-0-3****Prerequisites:** RES 235

This course focuses on the purpose, use, and evaluation of equipment/procedures used in the diagnosis and therapeutic management of patients with cardiopulmonary disease. This course builds on the knowledge in Respiratory Diagnostics and introduces an in depth study of Electrocardiography, Pulmonary Function and Stress testing, and Radiographic procedures involved in the Respiratory Care profession.

**RES 242 Adv Respiratory Care Trans 1-0-1****Prerequisites:** RES 236

This course provides a comprehensive review of respiratory care. This course assists in preparation for the successful completion of the written board exam. Analyze test taking strategies to enhance performance on standardized tests. Review cognitive material relevant to the advanced-level Respiratory Care Practitioner and describe three different types of exam questions found on the NBRC credentialing exam. Lastly, practice exam questions in preparation for the national credential exams.

**RES 244 Advanced Respiratory Skills I 3-3-4****Prerequisites:** RES 141

This course includes an in-depth study of mechanical ventilation and considerations for management of the critical care patient. The course will allow the student to build on the theory of mechanical ventilation taught in Respiratory Skills III. The student will learn advanced theory of practice and care of the mechanically ventilated patient. Ventilation protocols will be covered in this course. The student will practice critical thinking skills involved in the practice of a Respiratory Therapist. The lab portion of this class will enable the student to become proficient with all types of ventilation skills while treating all ages and types of impaired patients before performing these procedures in the healthcare setting.

**RES 246 Respiratory Pharmacology 2-0-2**

This course includes a study of pharmacologic agents used in cardiopulmonary care. This course covers the indications, side effects, and hazards of pharmacologic agents used in the intensive care unit. Emphasis is on agents commonly administered by the respiratory care practitioner. Including pharmacokinetic and pharmacodynamics phases of therapy. The student will learn the detailed application and use of medication in the Respiratory Care setting. Current and detailed calculations of medications used are stressed in detail in this course to ensure adequate and proper dosage of all medications to all types of acute and chronically ill patients.

**RES 249 Comprehensive Applications 0-6-2****Prerequisites:** RES 152 and RES 154

This course includes the integration of didactic and clinical training in respiratory care technology. This section will introduce the student to the alternative types of Respiratory Care including Homecare, Sleep Clinics, and Outpatient testing labs.

**RES 253 Adv Clinical Studies I 0-18-6****Prerequisites:** RES 152 and RES 154 and RES 249

This course includes clinical instructions in advanced patient care practice. This healthcare setting course will allow the student, working along side a licensed health care professional, to become proficient with the skills covered to this point in the Respiratory Care Program. The student will be required to maintain physician contact and skills check-off of all therapeutic procedures covered in RES 152, Clinical Applications I; RES 154, Clinical Applications II; and RES 249, Comprehensive Applications. During this rotation the student will be encouraged to work and participate in the critical care environment and become proficient with the skills learned in the laboratory setting of mechanical ventilation.

**RES 254 Adv Clinical Studies II 0-21-7****Prerequisites:** RES 152 and RES 154 and RES 249 and RES 253

This course includes clinical instruction in advanced patient care practice. This healthcare setting course will allow the student, working along side a licensed health care professional, to become proficient with the skills covered to this point in the Respiratory Care Program. The student will be required to maintain physician contact and skills check-off of all therapeutic procedures covered in RES 152, Clinical Applications II; RES 154, Clinical Applications II; RES 249, Clinical Applications; and RES 253, Advanced Clinical Studies I. The student will finalize all clinical responsibilities involved with the Respiratory Care Technology program and prepare for entry into the professional healthcare environment.