

RC - RESPIRATORY CARE (RC)

*Course Fees are Per Credit Hour

RC 300. Respiratory Anatomy and Physiology. (3 Credits)

In-depth study of anatomy and physiology as it relates to the cardiopulmonary system. Major pathophysiological concepts of common respiratory problems are discussed using a body systems approach applying theories related to etiology, pathogenesis, clinical manifestations and terminology. Prerequisite: Admission to respiratory care program. Corequisites: RC 302, RC 304, RC 306, RC 308, and RC 310. (Fall)
Course Fees: \$100

RC 302. Respiratory Pathophysiology. (3 Credits)

An overview of specific pulmonary diseases and conditions including assessment, diagnosis, monitoring and treatment. Covered conditions include obstructive and restrictive disorders, cardiovascular disorders, neurologic and neuromuscular disorders, trauma, near drowning, carbon monoxide poisoning and more. Corequisites: RC 300, RC 304, RC 306, RC 308, and RC 310. (Fall)
Course Fees: \$100

RC 304. Foundations of Respiratory Care. (3 Credits)

This course introduces respiratory care students to multiple dimensions of respiratory care including historical development, education, roles/responsibilities, licensure, and legal/ethical issues. Topics will also include principles of applying respiratory care to patients, indications, hazards, contraindications, evaluation, and monitoring of therapies. Corequisites: RC 300, RC 302, RC 306, RC 308, and RC 310. (Fall)
Course Fees: \$100

RC 306. Patient Assessment and Disease Management. (3 Credits)

Teaches basic concepts of professional respiratory care with emphasis on physical assessment and basic respiratory skills, procedures, and equipment. Corequisites: RC 300, RC 302, RC 304, RC 308, and RC 310. (Fall)
Course Fees: \$100

RC 308. Respiratory Assessment and Foundations Lab. (3 Credits)

This hand-on skills course will focus on gaining knowledge and skills required to operate and evaluate common respiratory care equipment. Topics will include patient assessment, initiation of therapies, equipment assembly, operation, and evaluation. Corequisites: RC 300, RC 302, RC 304, RC 306, and RC 310. (Fall)
Course Fees: \$100

RC 310. Respiratory Clinical Practice I. (1 Credit)

Students will be provided with clinical experiences and opportunities to develop their basic skills related to care of the respiratory patient. Corequisites: RC 300, RC 302, RC 304, RC 306, and RC 308. (Fall)
Course Fees: \$100

RC 330. Pulmonary Diagnostics. (3 Credits)

This course will provide an overview of the utilization, interpretation, and evaluation for various cardiopulmonary diagnostics. Prerequisites: RC 300, RC 302, RC 304, RC 306, RC 308, and RC 310. Corequisites: RC 332, RC 334, RC 336, and RC 338. (Spring)
Course Fees: \$100

RC 332. Respiratory Pharmacology. (3 Credits)

This course focuses on basic principles of pharmacology and will provide clinically relevant information on pharmacological agents used in the treatment of cardiopulmonary conditions. Dosage calculation will be covered, as well as an in-depth discussion of drugs and drug groups related to the cardiopulmonary system. Prerequisites: RC 300, RC 302, RC 304, RC 306, RC 308, and RC 310. Corequisites: RC 330, RC 334, RC 336, and RC 338. (Spring)
Course Fees: \$100

RC 334. Mechanical Ventilation I. (3 Credits)

This course will introduce students to techniques and concepts related to mechanical ventilation for neonatal, pediatric and adult patients. Prerequisites: RC 300, RC 302, RC 304, RC 306, RC 308, and RC 310. Corequisites: RC 330, RC 332, RC 336, and RC 338. (Spring)
Course Fees: \$100

RC 336. Critical Care Lab. (3 Credits)

Students will have direct experiences with respiratory care equipment. A review of each type of equipment will be discussed related to assembly and proper functioning, as well as actions needed to correct equipment malfunctions. Simulated patient scenarios will address specialized mechanical ventilation and advanced life support. Prerequisites: RC 300, RC 302, RC 304, RC 306, RC 308, and RC 310. Corequisites: RC 330, RC 332, RC 334, and RC 338. (Spring)
Course Fees: \$100

RC 338. Clinical Practice II. (4 Credits)

Students will be provided with clinical experiences and opportunities to continue to develop their basic skills, along with an introduction to advanced skills related to care of the respiratory patient. Prerequisites: RC 300, RC 302, RC 304, RC 306, RC 308, and RC 310. Corequisites: RC 330, RC 332, RC 334, RC 336. (Spring)
Course Fees: \$100

RC 410. Pediatric and Neonatal Respiratory Care. (3 Credits)

The processes of growth and development relating to respiratory care from the fetus to the adolescent will be discussed. This course will cover respiratory care principles and procedures related to the care of neonatal and pediatric patients with cardiopulmonary conditions. Prerequisites: RC 330, RC 332, RC 334, RC 336, and RC 338. Corequisites: RC 412, RC 414, RC 416, and RC 418. (Fall)
Course Fees: \$100

RC 412. Advanced Critical Care Lab. (2 Credits)

Students will have direct experiences with advanced respiratory care equipment. A review of each type of equipment will be discussed related to assembly and proper functioning, as well as actions needed to correct equipment malfunctions. Simulated patient scenarios will address specialized mechanical ventilation and advanced life support. Prerequisites: RC 330, RC 332, RC 334, RC 336, and RC 338. Corequisites: RC 410, RC 414, RC 416, and RC 418. (Fall)
Course Fees: \$100

RC 414. Seminar I. (2 Credits)

Students will examine basic case presentations to enhance their abilities with problem solving as related to adult, neonatal, and pediatric respiratory care. Students will complete practice board examinations to prepare for the certified (CRT) and registry (RRT) credentialing examinations. Prerequisites: RC 330, RC 332, RC 334, RC 336, and RC 338. Corequisites: RC 410, RC 412, RC 416, and RC 418. (Fall)
Course Fees: \$100

RC 416. Mechanical Ventilation II. (3 Credits)

This course will review advanced techniques and concepts related to mechanical ventilation for neonatal, pediatric and adult patients.

Prerequisites: RC 330, RC 332, RC 334, RC 336, and RC 338. Corequisites: RC 410, RC 412, RC 414, and RC 418. (Fall)

Course Fees: \$100

RC 418. Clinical Practice III. (6 Credits)

Students will be provided with clinical opportunities to continue to develop their basic skills related to care of the respiratory patient. Students will gain a better understanding of advanced procedures of respiratory care. Clinical practice hours will focus on the achievement of competencies related to a variety of respiratory care procedures in the following areas: labor and delivery, neonatal, pediatric, and critical care.

Prerequisites: RC 330, RC 332, RC 334, RC 336, and RC 338. Corequisites: RC 410, RC 412, RC 414, and RC 416. (Fall)

Course Fees: \$100

RC 442. Respiratory Clinical Practice IV. (6 Credits)

Clinical practice hours will focus on the achievement of competencies related to a variety of respiratory care procedures in the following areas: labor and delivery, neonatal, pediatric, and critical care. Students will be provided with opportunities to assist physicians and other health care clinicians with advanced critical care procedures. Prerequisites: RC 410, RC 412, RC 414, RC 416, and RC 418. Corequisites: RC 444, RC 446, RC 448, and RC 450. (Spring)

Course Fees: \$100

RC 444. Seminar II. (2 Credits)

Students will examine basic and advanced case presentations to enhance their abilities with decision-making as related to adult, neonatal, and pediatric respiratory care. Review of respiratory care will continue as it pertains to the certified (CRT) and registry (RRT) credentialing examinations administered by the National Board for Respiratory Care (NBRC). Successful completion of the National Board for Respiratory Care (NBRC) SAE registry examinations are required for this course.

Prerequisites: RC 410, RC 412, RC 414, RC 416, and RC 418. Corequisites: RC 442, RC 446, RC 448, and RC 450. (Spring)

Course Fees: \$100

RC 446. Respiratory Care Leadership and Education. (3 Credits)

Leadership principles will be examined as related to respiratory care and management within health care organizations. Students will engage in educational design and basic techniques for working with respiratory care patients. Prerequisites: RC 410, RC 412, RC 414, RC 416, and RC 418. Corequisites: RC 442, RC 444, RC 448, and RC 450. (Spring)

Course Fees: \$100

RC 448. Senior Capstone. (2 Credits)

This course is designed to assist students in applying the knowledge obtained throughout the program in simulation experiences.

Prerequisites: RC 410, RC 412, RC 414, RC 416, and RC 418. Corequisites: RC 442, RC 444, RC 446, and RC 450. (Spring)

Course Fees: \$100

RC 450. Research and Evidence-Based Practice. (2 Credits)

Students will be provided with an introduction to clinical research and the application of research findings to respiratory care practice.

Prerequisites: RC 410, RC 412, RC 414, RC 416, and RC 418. Corequisites: RC 442, RC 444, RC 446, and RC 448. (Spring)

Course Fees: \$100