

**UNIVERSITY OF THE DISTRICT OF COLUMBIA**  
**RESPIRATORY THERAPY PROGRAM**

The University offers the A.A.S. Degree in Respiratory Therapy. The curriculum reflects high standards of professional practice and incorporates guidelines from practice trends, professional organizations and accrediting agencies. Students develop the knowledge base and clinical competencies required to meet the health care needs of patients with cardiopulmonary disorders. Respiratory Therapists treat patients along the age and health-care continuums – from premature infants to the aged in critical care, acute care, rehabilitation, and home care settings.

**ACCREDITATION & CREDENTIALING**

The UDC Respiratory Therapy Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), in collaboration with the Committee on Accreditation for Respiratory Care (CoARC). Graduates are eligible for both the entry-level licensure/ CRT examination (required by the District of Columbia, Maryland and Virginia) and the advanced practice RRT examinations, both offered by the National Board for Respiratory Care (NBRC).

**ACADEMIC INFORMATION**  
**ADMISSION**

The UDC Office of Admissions processes applications to the University, and upon admission, students identifying Respiratory Therapy as a major, are assigned to a Respiratory Therapy faculty member for ongoing advisement. A separate application, however, is required to enroll in the Professional/Clinical Division (P/CD) of the program. Admission to the P/CD is competitive.

To be considered for admission to the P/CD, eligible students must first be enrolled at the University, complete prerequisites of 10 semester hours earning a minimum grade of 'C' in each identified course, and have a cumulative grade point average (CGPA) of 2.5 or higher. Transfer students must also demonstrate a 2.5 GPA, and have their official transcript(s) evaluated by the University. prior to their application to the P/CD. The prerequisite courses are: College Math I (3 credits), English Composition I (3 credits), Anatomy and Physiology I Lecture and Lab (4 credits).

The application for admission to the P/CD is due on March 1<sup>st</sup> for the Fall semester. Application submission does not guarantee admission to the P/CD. The Respiratory Therapy Admissions and Progression Committee reviews all applications and recommends students for admission. Students who are not accepted must reapply for consideration for admission.

**ASSOCIATE IN APPLIED SCIENCE DEGREE IN**  
**RESPIRATORY THERAPY**

*Total Credit Hours of College-Level Courses Required For Graduation: 70*

*The program offers both a day and an evening option.*

**PROGRAM OF STUDY**

**PREREQUISITES**

1535-101 General College Math I	3
1133-111 English Composition I	3
1401-112 Anatomy and Physiology II – Lecture	3
1401-114 Anatomy and Physiology II – Lab	1
<b>Total 10 Credits</b>	

**FIRST YEAR – FALL SEMESTER**

1431-170 Introduction to Health Sciences	2
1431-171 Principles and Practice of Resp Therapy I	4
1401-112 Anatomy and Physiology II – Lecture	3
1401-114 Anatomy and Physiology II – Lab	1
1133-112 or 1535-102 English Composition II or General College Math II	3
<b>Total 13 Credits</b>	

**FIRST YEAR - SPRING SEMESTER**

1431-172 Principles and Practice of Resp Therapy II	5
1431-173 Ventilation and Gas Exchange Physiology	2
1507-105 Fundamentals of Chemistry – Lecture	3
1507-106 Fundamentals of Chemistry – Lab	1
1133-112 or 1535-102 English Composition II or General College Math II	3
<b>Total 14 Credits</b>	

**SUMMER SEMESTER**

1431-250 Introduction to Mechanical Ventilation	3
1431-274 Acid-Base and Hemodynamic Physiology	3
<b>Total 6 Credits</b>	

**SECOND YEAR - FALL SEMESTER**

1431-269 Neonatal/Pediatric Respiratory Therapy	1
1431-270 Critical Care and Ventilator Management	5
1431-273 Cardiopulmonary Diagnostics	3
1431-276 Respiratory Disease Management	3
1431-280 Respiratory Care Seminar I	1
<b>Total 13 Credits</b>	

**SECOND YEAR - SPRING SEMESTER**

1431-277 Adjunctive Respiratory Therapies	3
1431-278 Respiratory Therapy Clinical Preceptorship	3
1431-290 Respiratory Care Seminar II	1
1401-245 Clinical Microbiology Lecture	3
1401-244 Clinical Microbiology Lab	1
Elective Psychology or Sociology Elective	3
<b>Total 14 Credits</b>	

**RESPIRATORY THERAPY COURSE**  
**DESCRIPTIONS**

**1431-170 Introduction to Health Sciences (2)**

The student will be introduced to the contemporary systems of delivering and paying for medical care, the roles of the members of the health care team, communication within the health care setting, medical terminology, professional ethics, hospital records, and legal considerations. (2 Hours lecture) Co-requisite: 1431-171.

**1431-171 Principles and Practice of Respiratory Therapy I (4)**

Topics include the chemistry and physics of medical gases, and their application and therapeutic delivery with an emphasis on oxygen administration modalities. Assessment of the patient and an introduction to infection control are included. Laboratory skills are developed in non-invasive assessment techniques, medical gas administration and the principles of humidity/nebulization therapy, which are then translated to the clinical setting. (2 hours lecture, 3 hours lab, 5 hours clinical) Co-requisite: 1431-170

**1431-172 Principles and Practice of Respiratory Therapy II (5)**

This course focuses on the following principles: pharmacologic aerosol therapy, chest physiotherapy, airway management, hyperinflation therapy and gas monitoring techniques. CPR management in the hospitalized patient builds on the student's Basic Life Support Certification. Laboratory and clinical experiences develop competency in the application of these principles. (3 hours lecture, 3 hours lab, 12 hours clinical) Prerequisites: 1431-170, 1431-171, Co-requisite: 1431-173

**1431-173 Ventilation and Gas Exchange Physiology (2)**

This course discusses the normal physiology of the pulmonary system. It includes the physics of gas flow, the mechanics of breathing, the effects of static and dynamic lung characteristics on ventilation, ventilation-perfusion relationships, gas diffusion and transport. (2 hours lecture) Prerequisites: 1431-170, 1431-171, Co-requisite: 1431-172

**1431-250 Introduction to Mechanical Ventilation (3)**

This course provides a transition from general floor therapy to the intensive care unit. Students are introduced to the common modes and equipment utilized in providing ventilatory support to hospitalized adult patients. Laboratory and clinical assignments offer a "hands-on" experience preparing students for assuming ventilatory care responsibilities in subsequent clinical courses. (2 hours lecture, 3 hours lab, 6 hours clinical) Prerequisites: 1431-172, 1431-173. Co-requisite: 1431-274.

**1431-269 Neonatal/Pediatric Respiratory Therapy (1)**

This course presents normal prenatal development followed by assessment of the neonate. Perinatal lung disease and intervention is included with emphasis on management of neonatal ventilation. Respiratory care procedures unique to the pediatric population are included. (1 hour lecture) Prerequisites: 1431-250, 1431-274, Co-requisites: 1431-270, 1431-273, 1431-276, 1431-280

**1431-270 Critical Care and Ventilator Management (5)**

This course builds on the student's basic ventilatory care skills to develop expertise in the management of critically ill patients. Emphasis is placed on the therapist's role as a critical care team member stressing advanced ventilatory options as well as familiarity with the following pharmacologic classifications: cardiovascular drugs, neuromuscular blocking agents and drugs affecting the central nervous and renal systems. (2 hours lecture, 3 hours lab, 12 hours clinical) Prerequisites: 1431-250, 1431-274. Co-requisites: 1431-269, 1431-273, 1431-276, 1431-280.

**1431-273 Cardiopulmonary Diagnostics (3)**

This course includes the techniques involved in blood gas analysis, as well as the diagnostic measures of EKG'S, radiographic interpretation, bronchoscopy, pulmonary function studies, and polysomnography. Laboratory skills will include the application, calculation and interpretation of diagnostic pulmonary analysis. Equipment familiarity will be stressed as well as calibration and quality control procedures to reinforce the didactic content. (2 hours lecture, 3 hours laboratory) Prerequisites: 1431-250, 1431-274. Corequisites: 1431-269, 1431-270, 1431-276, 1431-280.

**1431-274 Acid-Base and Hemodynamic Physiology (3)**

This course builds on the gas exchange physiology and chemistry courses with an emphasis on physiologic acid-base balance and blood gas interpretation. Additional content explores the cardiovascular and renal systems as they relate to both homeostatic and pathologic acid base and hemodynamic regulation. (3 hours lecture) Prerequisites: RSPT 1431-172, 1431-173, 1507-105/106. Corequisites: 1431-250

**1431-276 Respiratory Disease Management (3)**

This course includes the study of the etiology, pathophysiology, clinical manifestations and management of pulmonary disease processes, exploring in detail the medical management of conditions manifesting in pulmonary dysfunction. (3 hours lecture) Prerequisites: 1431-250, 1431-274, Co-requisites: 1431-269, 1431-270, 1431-273, 1431-280

**1431-277            Adjunctive Respiratory  
                         Therapies    (3)**

This course emphasizes the sub-specialty areas of Respiratory Care, to include, but not limited to pulmonary rehabilitation, home care, smoking cessation, transport, hyperbarics, ECMO, metabolic and exercise testing, nitric oxide, heliox, partial liquid ventilation, and assisting with thoracentesis, cardioversion, chest tube insertion and management. (3 hours lecture) Prerequisites: 1431 269, 1431-270, 1431-273, 1431-276, 1431-280. Co-requisites: 1431-278, 1431-290.

**1431-278            Respiratory Therapy  
                         Clinical Preceptorship    (3)**

This course allows for reinforcement of skills and the development of judgment and independence as the student assumes greater Respiratory Care responsibilities. Additional critical care experience will solidify ventilator management acumen. Specialized clinical rotations in the areas of diagnostic pulmonary functions, EKG's, hemodynamics, sleep lab, home care, and pulmonary rehabilitation are provided. (16 hours clinical) Prerequisites: 1431-269, 1431-270, 1431-273, 1431-276, 1431-280. Co-requisites: 1431-277, 1431-290.

**1431-280            Respiratory Therapy  
                         Seminar I    (1)**

The goal of the course is to prepare the student for the entry level self assessment evaluation examination given by the National Board for Respiratory Care. Objectives will be met by small group exam review and analysis, computer programmed instruction, and frequent testing. (3 hours seminar) Prerequisites: 1431-250, 1431-274, Co-requisites: 1431-269, 1431-270, 1431-273, 1431-276

**1431-290            Respiratory Therapy  
                         Seminar II    (1)**

This is a seminar course in which the National Board for Respiratory Care advanced practice examination matrices are explored. The methodical review of all areas of respiratory care services provides the framework with emphases on specific competencies necessary for passing the advanced National Board Examinations. (3 hours seminar) Prerequisites: 1431-269, 1431-270, 1431-273, 1431-276, 1431-280. Co-requisites: 1431-277, 1431-278