



Respiratory Therapy (Respiratory Care Therapy)

Program Information

This program of study is designed to provide academic and clinical training in patients who suffer from heart and lung conditions. Respiratory Therapists work closely with doctors and nurses and have innovative awareness of mechanical ventilators and other technological equipment. The Associate of Applied Science degree awarded at program completion is a five-semester, competency-based curriculum that includes practical knowledge in a health care institution.

The Respiratory Care Therapy Program holds Provisional Accreditation from the Commission on Accreditation for Respiratory Care (www.coarc.com). It is recognized as an accredited program by the National Board for Respiratory Care (NBRC), which provides enrolled students who complete the program with eligibility for the Respiratory Care Credentialing Examination(s). The program will remain on Provisional Accreditation until it achieves Continuing Accreditation.

Occupational Choices

Employment of respiratory therapists is projected to grow 23 percent from 2016 to 2026, much faster than the average for all occupations. Growth in the middle-aged and elderly population will lead to an increased incidence of respiratory conditions such as chronic obstructive pulmonary disease (COPD) and pneumonia. These respiratory disorders can permanently damage the lungs or restrict lung function.

<https://www.bls.gov/ooh/healthcare/respiratory-therapists.htm>

Average Full-Time Wage

The median annual wage for respiratory therapists was \$60,280 in May 2018. The median wage is the wage at which half the workers in an occupation earned more than that amount and half earned less. The lowest 10 percent earned less than \$43,750, and the highest 10 percent earned more than \$83,520.

The median annual wage for respiratory therapists in the top industries in which they worked were as follows:

- Hospitals; state; local; private: \$60,500
- Offices of physicians: \$60,300
- Nursing care facilities: \$60,260

<https://www.bls.gov/ooh/healthcare/respiratory-therapists.htm#tab-5>

Admission Requirements

Program applications and deadline for application submission will be posted to the Respiratory Therapy (Respiratory Care Therapy) webpage in April each year.

Applicants must:

- Meet all general admission requirements of Trenholm State Community College and be in good standing.
- Complete all general required courses (prerequisites) courses with a minimum grade of "C" in each course (see listing below).
- Minimum ACT score of 18.
- Attain a minimum cumulative GPA of 2.5 or greater on a 4.0 scale with a grade of "C" or better on all general required prerequisite courses.
- Submit a completed RPT-program application by the application deadline to include all of the following documents:
 1. Completed RPT-Program Application. The program application can be found on the website in April. Select Academics, Programs of Study, then Respiratory Therapy.
 2. Copies of transcripts from ALL colleges previously attended.
 3. A copy of your Trenholm State transcript showing completion and transfer of ALL prerequisite courses.
 4. A copy of your ACT score or Residual score showing 18 or higher (all applicants will be ranked according to his/her ACT score. Applicants with the highest ACT scores will be issued acceptance letters.

Estimated Program Length & Cost *

<u>Award</u>	<u>Length</u>	<u>Credit Hours</u>	<u>Tuition/Fees</u>	<u>Books</u>	<u>Tools</u>	<u>Supplies</u>
Associate Degree	7 Terms	76	\$12,084	\$3,400	\$600	\$600
(Not including prerequisites)	5 Terms	53	\$8,427	\$2,500	\$600	\$600
Estimated Testing Fees for uniforms, testing, etc.: \$3,500						

* Tax not included. Prices are subject to change without prior notice; cost of books may vary considerably among suppliers. Cost of general education books is in addition to the total listed above. The length of the program is based on full-time status of 12-15 credit hours per term. Enrollment in transitional level general education courses will alter the length of the program.

5. Good standing with the college.
6. Meet all of the essential functions or technical standards required for Respiratory Therapy.

Technical Standards

Candidates must be able to meet all Essential Functions required of the program with or without accommodation. Essential functions include, but are not limited to the following:

- **Sensory/Observational Skills:** The candidate must be able to observe a patient precisely at a distance and up close. Perception requires the efficient use of all the senses.
- **Communication:** The candidate must be able to communicate, hear, and watch patients to evoke data, portray changes in mindset, movement and pose, and observe nonverbal communications. A candidate must be able to converse efficiently with patients and all members of the health care team. Communication includes but is not limited to: listening, speaking, reading and writing.
- **Motor Skills:** The candidate must have sufficient motor skills to increase contact to patients in a variety of care settings and to operate and apply the equipment utilized for assessment, general and emergency treatment of patients receiving Respiratory Care. Such actions require coordination of both gross and fine muscular movements, balance and practical use of the senses of touch and vision.
- **Intellectual-Conceptual, Integrative, and Quantitative Abilities:** These capabilities include measurement, calculation, reasoning, examination, and assessment. Problematic deciphering, the critical skill required of health care practitioners, necessitates all of these capabilities.
- **Behavioral/Social Skills and Professionalism:** A candidate must possess the emotional health obligatory for the utilization of his/her intellectual abilities. The implementation of moral decision, the swift completion of all tasks associated with the care of patients, and the growth of active affiliations with patients are vital services for health practitioners. Applicants must be able to tolerate heavy workloads and to function commendably under pressure. They must be able to acclimatize to shifting environments, to display flexibility, and to learn to perform in the face of the indecisions essential in the clinical complications of numerous patients. Apprehension for others, reliability, social skills, awareness, and inspiration are all personal assets required for the health practitioners.
- **Environmental:** All candidates must interact with patient populations of all ages with an array of acute and chronic illnesses. Candidates must be able to endure recurrent contact with transmittable diseases, poisonous substances, ionizing radiation, pharmaceutical preparations, aggressive individuals, and other conditions common to the health care setting.

Awards Available

Associate of Applied Science
Respiratory Care Therapy

Program Contact

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As part of ongoing planning and evaluation, the College regularly evaluates student learning outcomes for each program.

The Respiratory Therapy Program accepts students once a year in the Fall Semester

Admission to the Respiratory Therapy (Respiratory Care Therapy) Program is competitive, and meeting minimal requirements does not guarantee acceptance.

Associate of Applied Science Respiratory Care Therapy

General Education Requirements (23 hours)

Area I - Written Composition (3 hours)

ENG-101*	English Composition I	3
ENG-102	English Composition II	3
ENG-130	Technical Report Writing	3

Area II - Humanities & Fine Arts (6 hours)

(Humanities and Arts disciplines include but are not limited to: Area/Ethnic Studies, Art and Art History, Foreign Languages, Music and Music History, Philosophy, Ethics, Religious Studies, Theater and Dance.)

Note: If SPH-106, SPH-107, SPA-101 or SPA-102 has been taken an additional 3 semester hours in Humanities and Fine Arts must be taken to satisfy requirements in Area II.

Arts:

ART-100*	Art Appreciation	3
MUS-101*	Music Appreciation	3

Humanities:

PHL-106	Intro to Philosophy	3
PHL-206	Ethics & Society (Preferred)	3
REL-100	History of World Religions	3
REL-151	Survey of Old Testament	3
REL-152	Survey of New Testament	3
SPA-101	Intro Spanish I	3
SPA-102	Intro Spanish II	3
SPH-106*	Fundamentals of Oral Comm	3
SPH-107*	Fundamentals of Public Speaking	3

Literature:

ENG-251	American Literature I	3
ENG-252	American Literature II	3
ENG-261	English Literature I	3
ENG-262	English Literature II	3
ENG-271	World Literature I	3
ENG-272	World Literature II	3

Area III - Natural Science & Mathematics (11 hours)

(In addition to Mathematics, disciplines in the Natural Sciences include: Astronomy, Biological Sciences, Chemistry, Geology, Physical Geography, Earth Science, Physics, and Physical Science.)

Note: 3 semester hours in MTH must be completed. Additional hours can be taken in the Natural Science area.

Mathematics:

MTH-100*	Intermediate Algebra	3
MTH-103	Intro to Technical Mathematics	3
MTH-104	Plane Trigonometry	3
MTH-110	Finite Mathematics	3
MTH-112	Precalculus Algebra	3
MTH-116	Mathematical Applications	3

Natural Sciences:

BIO-101	Introduction to Biology I	4
BIO-102	Introduction to Biology II	4
BIO-103	Principles of Biology I	4
BIO-104	Principles of Biology II	4
BIO-201*	Human Anatomy & Physiology I	4
BIO-202*	Human Anatomy & Physiology II	4
BIO-220	General Microbiology	4
PHS-111	Physical Science I	4
PHS-112	Physical Science II	4
PHY-120	Introduction to Physics	4

Area IV - History, Social & Behavioral Sciences (3 hours):

(Social and Behavioral Sciences include, but are not limited to: Anthropology, Economics, Geography, Political Science, Psychology, and Sociology.)

History:

HIS-101	Western Civilization I	3
HIS-102	Western Civilization II	3
HIS-121	World History I	3
HIS-122	World History II	3
HIS-201	United States History I	3
HIS-202	United States History II	3

Social and Behavioral Sciences:

PSY-200*	General Psychology	3
PSY-210	Human Growth and Development	3
SOC-200	Introduction to Sociology	3
POL-200	Introduction to Political Science	3
POL-211	American National Government	3

Area V: Pre-Professional/College Requirements:

(Courses appropriate to the degree requirements and major of the individual student and electives.)

College Requirements:

ORI-101	Orientation to College	1
RPT-210	Clinical Practice I	2
RPT-211	Introduction to Respiratory Care	2
RPT-212	Fundamentals of Respiratory Care I	4
RPT-213	Anatomy/physiology for RCP	3
RPT-214	Pharmacology for RCP	2
RPT-220	Clinical Practice II	2
RPT-221	Pathology for RCP I	3
RPT-222	Fundamentals of Respiratory Care II	4
RPT-223	Acid Base Regulations & ABG	2
RPT-230	Clinical Practice III	2
RPT-231	Pathology for RCP II	3
RPT-232	Diagnostic Procedures for RCP	2
RPT-233	Special Procedures for RCP	2
RPT-234	Mechanical Ventilation for RCP	4
RPT-240	Clinical Practice IV (Internship)	4
RPT-241	Pulmonary Rehab and Home Care	2
RPT-242	Perinatal/Pediatric Resp. Care	3
RPT-243	Computer Applications for RCP	2
RPT-244	Critical Care for RCP	2
RPT-266	Seminar in Resp. Medicine I	1
RPT-268	Writing and Research for RCP II	1

Area V Credit Hours: 53

Total Credit Hours: 76

Note: Although a CIS course is not required, all RPT students will be required to demonstrate computer literacy through online assignment, presentations and other computer-based activities.

Required General Education courses (23 credit hours) must be completed prior to applying to the Respiratory Care Therapy. All courses are offered at Trenholm State Community College. Transferability of courses from other education institutions will be assessed upon submission of a complete College application.

Course Descriptions Respiratory Care Therapy

Course #	Course Title	Credit Hours
RPT-210	CLINICAL PRACTICE I	2
	This clinical course provides for initial hospital orientation and development of general patient assessment and communication skills required for safe and effective patient care. Emphasis is placed upon application of classroom and laboratory experiences within the clinical environment. Upon completion, students should demonstrate adequate psychomotor skills and cognitive abilities necessary for initial patient contact and safe and effective performance of basic respiratory care procedures. This is a CORE course.	
RPT-211	INTRODUCTION TO RESPIRATORY CARE	2
	This course is designed to acquaint the student with responsibilities of the Respiratory Care Practitioner (RCP) as a member of the health care team. Areas of emphasis include: history of the profession, credentialing mechanism, licensure, medical ethics, communication skills, basic medical terminology, and patient assessment. Upon completion, students should be able to demonstrate effective communication skills, proper use of aseptic technique, deference to appropriate professional ethics and behavior, and be able to perform basic patient assessment. This is a CORE course.	
RPT-212	FUNDAMENTALS OF RESPIRATORY CARE I	4
	A fundamental course which presents the scientific basis for respiratory care procedures and application of basic chemistry and physics as related to compressed gases and respiratory care equipment operation. Experimental laboratory is required and emphasis includes: design, functional characteristics, and operation of commonly encountered respiratory care equipment, use of medical gases and applied chemistry, physics, and mathematics. Upon completion, the student should be able to demonstrate an adequate knowledge base concerning function and troubleshooting of respiratory care equipment and concepts of applied physics, chemistry, and mathematics. This is a CORE course.	
RPT-213	ANATOMY AND PHYSIOLOGY FOR THE RCP	3
	This course provides detailed lecture and audio-visual presentations which concentrate on the cardiopulmonary and renal systems. Emphasis is placed on structure, function, and physiology of the cardiopulmonary and renal systems and the role each plays in the maintenance of homeostasis. Upon completion, the student should be able to demonstrate adequate knowledge of the structure, function, and physiology of the cardiopulmonary and renal systems. This is a CORE course.	
RPT-214	PHARMACOLOGY FOR THE RCP	2
	This course is a detailed study of drugs encountered in respiratory care practice and the function of the autonomic nervous system. Areas of emphasis include: determination of drug dosage, applied mathematics, clinical pharmacology, indications, hazards, intended actions, and side-effects of agents used in respiratory care. Upon completion, the student should be able to complete a dosage calculation test with 90% proficiency and demonstrate an adequate understanding of the clinical pharmacology of respiratory care drugs, and the general principles of pharmacology. This is a CORE course.	
RPT-220	CLINICAL PRACTICE II	2
	PREREQUISITE: RPT 210 This course is a continuation of clinical practice and allows the student to further integrate classroom and laboratory instruction into the practice of respiratory care. Areas of emphasis include: bedside patient assessment techniques, airway management, hyperinflation therapy, protocol implementation, development of patient care plans, oxygen, humidity and aerosol administration, and an introduction to management of the mechanical ventilation of the adult. Upon completion, the student should be able to demonstrate appropriate psychomotor skills and cognitive abilities necessary to successfully function as primary care giver for routine respiratory care procedures. This is a CORE course.	
RPT-221	PATHOLOGY FOR THE RCP I	3
	This course is a survey of commonly encountered diseases and disorders which may affect the function of the cardiopulmonary system, and the clinical manifestations and treatment rationales as related to respiratory care practice. Practical laboratory is required and course emphasis is placed upon the application of sound diagnostic techniques in the gathering of data in support of diagnosis of specific disease entities as well as progression of pathological changes in cardiopulmonary function. Upon completion, the student should be able to demonstrate the ability to gather appropriate information from various sources in support of diagnosis of specific cardiopulmonary disease as well as an adequate understanding of cardiopulmonary pathology. This is a CORE course.	

Course #	Course Title	Credit Hours
RPT-222	FUNDAMENTALS OF RESPIRATORY CARE II PREREQUISITE: RPT 212	4
	This course continues to present the fundamental scientific basis for selected respiratory care procedures. Experimental laboratory is required and areas of emphasis include: therapeutic techniques utilized in bronchial hygiene, hyperinflation therapy, mechanical ventilation of the adult, manual resuscitation equipment, the equipment utilized in bedside assessment, and mechanical ventilation. Upon completion, the student should be able to demonstrate the cognitive abilities and psychomotor skills required to perform the procedures presented. This is a CORE course.	
RPT-223	ACID BASE REGULATION AND ABG ANALYSIS	2
	This course provides the student with lecture and audiovisual presentation of material essential to the understanding of acid/base physiology and arterial blood gas interpretation. Emphasis is placed upon Arterial Blood Gas (ABG) sampling technique, quality assurance, basic chemistry as related to acid/base balance, evaluation of oxygen transport, and the role of the respiratory and renal systems in maintenance of homeostasis. Upon completion, the student should be able to demonstrate appropriate psychomotor skills and cognitive abilities for the fundamental concepts of acid/base balance and regulation of homeostasis by the respiratory and renal systems.	
RPT-230	CLINICAL PRACTICE III PREREQUISITE: RPT 220	2
	This is the third course in the clinical sequence, and is designed to allow the student to function in the role of primary care giver. Emphasis is placed upon mastery of basic respiratory care procedures, administration of aerosol drugs, and care of the patient receiving mechanical ventilation. Upon completion, the student should be able to demonstrate psychomotor skills and cognitive abilities necessary to function safely and effectively in the role of primary care giver. This is a CORE course.	
RPT-231	PATHOLOGY FOR THE RCP II PREREQUISITE: RPT 221	3
	This course continues to present specific disease entities which may impair cardiopulmonary function. Laboratory study is directed toward diagnostic techniques and decision making. Course emphasis is placed upon etiology, diagnosis, prognosis, and treatment rationale for each medical problem presented. Upon completion, the student should be able to demonstrate the cognitive abilities necessary to integrate clinical and laboratory data obtained from various sources in support of the diagnosis and treatment of the specific disease entities presented.	
RPT-232	DIAGNOSTIC PROCEDURES FOR THE RCP	2
	This course is designed to present the value of various procedures as an aid to diagnosis in cardiopulmonary disease. Course emphasis is placed upon procedures such as complete pulmonary function testing, bronchoscopy, cardiac diagnostic procedures, and ventilation/perfusion studies. Upon completion, the student should be able to demonstrate the psychomotor and cognitive abilities necessary to perform routine diagnostic procedures. This is a CORE course.	
RPT-233	SPECIAL PROCEDURES FOR THE RCP	2
	This course identifies and presents special procedures and medical specialties for various tasks required of the RCP, while functioning in an assistive role to the physician. Course emphasis is placed upon phlebotomy, bronchoscopy, hemodynamic assessment, and advanced cardiopulmonary monitoring techniques. Upon completion, the student should be able to demonstrate cognitive abilities and understand the psychomotor skills necessary to perform assistive functions during the various procedures presented. This is a CORE course.	
RPT-234	MECHANICAL VENTILATION FOR THE RCP	4
	This course continues and expands the presentation of material concerning mechanical ventilation as previously introduced including indications, modification, and discontinuance of mechanical ventilation. Laboratory is required and course emphasis is placed upon the application of scientific principles to the clinical use of various modes of mechanical ventilation. Upon completion, the student should be able to demonstrate the cognitive and psychomotor skills required to effectively institute and maintain various methods of mechanical ventilation. This is a CORE course.	
RPT-240	CLINICAL PRACTICE IV PREREQUISITE: RPT 230	4
	This course, the last in the required clinical sequence, provides opportunities for the student to further refine clinical skills. Course emphasis is placed upon critical care, neonatal mechanical ventilation, home care and discharge planning. Upon completion, the student should be able to demonstrate the cognitive and psychomotor skills required to function in the role of advanced respiratory care practitioner. This is a CORE course.	

Course #	Course Title	Credit Hours
RPT- 241	REHABILITATION AND HOME CARE FOR THE RCP	2
	This course presents special considerations which apply to rehabilitation and home care of the patient with cardio-pulmonary disorders. Emphasis is placed upon the role of the RCP within the home care medical community and modification of techniques and procedures necessary for effective pulmonary management. Upon completion, the student should be able to demonstrate an understanding of discharge planning and disease management protocols as applied to rehabilitation and the continuation of effective respiratory care outside of an acute care facility. This is a CORE course.	
RPT-242	PERINATAL/PEDIATRIC RESPIRATORY CARE	3
	This course presents the unique requirement for appropriate delivery of respiratory care to the neonatal and pediatric patient. Laboratory is required and course emphasis is placed upon a detailed outline of fetal lung development, fetal circulation, neonatal cardiopulmonary disorders, and specialized equipment and techniques, as well as general considerations of provision of care to neonatal and pediatric patients. Upon completion, the student should be able to demonstrate the cognitive and psychomotor skills required for safe and effective delivery of respiratory care to the neonatal and pediatric patient. This is a CORE course.	
RPT-243	COMPUTER APPLICATIONS FOR THE RCP	2
	This course is designed to allow the student practice in utilizing computer assisted clinical simulation software as well as allow for a general program review in preparation for credentialing examinations. Emphasis is placed on development of critical thinking skills, specific to the discipline, and development of computer literacy. Upon completion, students should be able to demonstrate computer literacy and satisfactory performance on nationally standardized comprehensive self-assessment examinations. This is a CORE course.	
RPT-244	CRITICAL CARE CONSIDERATIONS FOR THE RCP	2
	This course provides for continued discussion concerning the monitoring and maintenance of patients who are treated in the critical care area of an acute care hospital. Course emphasis is placed upon advanced monitoring and assessment techniques employed in the treatment of the critical care patient. Upon completion, the student should be able to demonstrate increased psychomotor and cognitive abilities as pertaining to critical care. This is a CORE course.	
RPT-266	SEMINAR IN RESPIRATORY MEDICINE I	1
	This course is a series of physician and/or guest lecturers designed to present topics of special interest to the student or practitioner. Emphasis is placed upon current medical practice within the field of pulmonary medicine and cardiology. Upon completion, the student should be able to demonstrate an increased knowledge base concerning the topics of special interest presented.	
RPT-268	WRITING AND RESEARCH FOR THE RCP II	1
	This course allows for independent research on a topic of special interest within the field of respiratory care. A written narrative of research activities or a literature research paper is required. Upon completion, students should be able to effectively communicate in written narrative form the results of independent study.	