The Bachelor of Science in Respiratory Care Program prepares students to practice as respiratory care professionals and take their place as a key healthcare team member. Skilled in assessing patients with breathing disorders in the emergency room, intensive care units and many other areas in healthcare facilities, respiratory therapists work directly with physicians on newborn, pediatric or adult patients to analyze oxygen levels and breathing difficulty. Therapists administer medications to relieve breathing distress, provide pulmonary/lung therapies, and conduct lung diagnostics for all ages. Graduates find employment in many settings such as hospitals, pulmonary rehabilitation clinics, doctors offices, sleep labs, homecare, and air-life transport teams working with patients in the emergency room, newborn/pediatric/adult intensive care units, and many other areas.

Respiratory care (RC) majors take classes on the San Marcos campus and gain clinical experience in area hospitals. Students successfully admitted to the program must complete the sequenced curriculum within the cohort group. Individuals taking core courses prior to applying for admission to the RC program should contact the College of Health Professions’ Advising Office. Students completing an associate degree in RC from another university or college are eligible to apply for admission to the B.S.R.C. Program at Texas State for bachelor degree completion. For information on this option, see the department chair. The B.S.R.C. Program is accredited by the Commission on Accreditation for Respiratory Care (CoARC) and qualifies graduates to take national board credentialing exams immediately upon completion.

The department also offers a graduate certificate in Polysomnographic Technology (sleep studies) at the graduate level that is fully accredited by CoARC and qualifies individuals to sit for national board credentialing exams immediately upon completion. The polysomnographic (PSG) graduate certificate is comprised of six courses (15 credit hours) with three courses offered each fall and spring. Individuals credentialed in PSG provide diagnostic and therapeutic treatment for those suffering from sleep disorders such as obstructive sleep apnea, insomnia, narcolepsy, and other conditions. Admission for the Polysomnographic Technology certificate is granted each summer for a cohort starting in the fall. Please refer to the Graduate catalog for admission requirements and course descriptions.

Admission Process
Application for admission to the RC program must be made to the RC department in addition to regular university admission procedures. All applicants must have an overall GPA of 2.50 to apply. It is highly recommended that individuals interested in applying for the RC program complete RC 2213 prior to application. Admission is competitive and enrollment is limited depending on student/faculty ratios in the clinical phase of the program. All courses must be taken in sequence and completed with a grade of C or higher in order to progress to the next semester in the curriculum. Due to performance standards of the profession, students must meet specific ADA standards in accordance with physical and emotional requirements of the academic program in order to qualify for admission.

Program Progression
Successful program progression requires students to complete each semester in a lock-step sequence with a grade of “C” or higher in all RC courses. According to departmental policy, students with a grade of less than a “C” in a RC course will be ineligible to continue the program and must reapply to the program the following year. To be considered for program readmission, all original program admission criteria must be met. If readmitted, an assessment of clinical skills will be required to determine appropriate clinical placement in the curriculum sequence.

Graduation
Requirements for B.S.R.C. completion and graduation include a Texas State GPA of 2.0 with a RC major GPA of 2.25.

Immunization Requirements
It is a policy of the College of Health Professions that each student must provide the College Health Report completed by a physician or licensed healthcare provider, and must complete specific immunizations before being placed in a clinical or internship assignment. Information on these requirements and forms may be obtained through the departmental office.

Background Checks and Drug Screening
As a condition for placement in some professional practice sites, all students are required to have a background check and/or drug screening to meet requirements of individual sites. Information on the drug screening process will be provided by the department. Previous misdemeanor or felony convictions under various titles of the Texas Penal Code may affect eligibility for state respiratory care practitioner license status following graduation and may affect admission consideration.

Bachelor of Science in Respiratory Care (B.S.R.C.)

- Major in Respiratory Care (http://mycatalog.txstate.edu/undergraduate/health-professions/respiratory-care/bsrc)

Information about graduate programs can be found in the Graduate Catalog (http://mycatalog.txstate.edu/graduate).

Courses in Respiratory Care (RC)

RC 2213. Introduction to Respiratory Care.
This course offers an in-depth overview of the respiratory care profession to acquaint the student with the responsibilities of the respiratory therapist as part of healthcare team. Progression of the profession, career opportunities, past and future impact of profession on patient recovery and health maintenance, and medical gas therapy will be covered.

Information about Introduction to Respiratory Care
2 Credit Hours. 2 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter
About Introduction to Respiratory Care
This course examines the most common pulmonary function tests, their techniques, and the pathophysiology that may be evaluated by each test. Pulmonary function equipment, calibration, and the American Thoracic Society guidelines will be discussed. Laboratory practice of performing the tests will be provided to develop skills for testing patients.

1 Credit Hour. 0 Lecture Contact Hours. 4 Lab Contact Hours.
Grade Mode: Standard Letter

about Pulmonary Function Testing

RC 3212. Pharmacology.
A comprehensive study of pharmacology principles. Receptor theory, clinical applications of medications, and historical analysis of first-generation medications will be covered. Current medication trends and recommendations are also examined.

2 Credit Hours. 2 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

about Pharmacology

RC 3232. Hemodynamics.
This course is an advanced study of cardiovascular hemodynamic measurements. Normal cardiovascular physiology and measures are examined, as well as variations caused by disease. Current clinical trends and practices in hemodynamic procedures are also explored.

2 Credit Hours. 2 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

about Hemodynamics

RC 3313. RC Clinical Practice I.
This course provides an introduction to respiratory care clinical skills, including vital signs, chest assessment, infection control, aerosolized medication delivery, oxygen therapy, hyperinflation therapy, and airway clearance. This course prepares the student for direct patient care to be performed in more advanced courses. Direct patient care is performed under close supervision.

3 Credit Hours. 0 Lecture Contact Hours. 16 Lab Contact Hours.
Grade Mode: Standard Letter

about RC Clinical Practice I

RC 3314. Respiratory Care Instrumentation.
Through lectures and lab exercises, students are acquainted with concepts of design, function, and operation of basic respiratory care equipment. Oxygen cylinders, regulators, flowmeters, oxygen analyzers, oximeters, oxygen adjuncts, humidifiers, nebulizers, airways, and pressure cycled ventilators will be covered. The course also covers respiratory pharmacology, decontamination of equipment, and arrhythmia recognition.

3 Credit Hours. 2 Lecture Contact Hours. 3 Lab Contact Hours.
Grade Mode: Standard Letter

about Respiratory Care Instrumentation

RC 3315. Cardiopulmonary - Renal Anatomy & Physiology.
This course provides an in-depth human gross anatomy study of the cardiac, respiratory, and renal systems. Clinical application of pulmonary anatomy and physiology will also be explored.

3 Credit Hours. 2 Lecture Contact Hours. 3 Lab Contact Hours.
Grade Mode: Standard Letter

about Cardiopulmonary - Renal Anatomy & Physiology

RC 3316. Fundamentals of Respiratory Care.
This course provides a study of theories and modalities utilized in delivering, monitoring, and evaluating basic respiratory therapeutics to patients with compromised respiratory function in various healthcare settings. Aspects of artificial ventilation, arterial blood gas analysis, lung volume diagnostics, and hyperinflation intervention will be covered in patient scenarios.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

about Fundamentals of Respiratory Care

RC 3321. Cardiopulmonary Pathology.
As an introduction to the assessment, treatment, and pathophysiology of respiratory diseases, this course focuses on the signs, symptoms, etiology, pathophysiology, diagnosis and treatment of selected diseases. Utilizing clinical simulation software to develop critical thinking regarding assessment, diagnostic data gathering. (WI).

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Writing Intensive

Grade Mode: Standard Letter

about Cardiopulmonary Pathology

This course provides students with an in-depth study of selected respiratory care techniques with an emphasis on the care of critically ill patients. Critical skills and knowledge of mechanical ventilation, bedside diagnostic techniques, patient monitoring, and rehabilitation are explored in the critical care setting.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

about Critical Care Concepts

RC 3323. RC Clinical Practice II.
Students perform clinical procedures and interact with patients and professional personnel in a healthcare institution under the supervision of a respiratory therapist. Students gain direct patient care experience as presented in medical/surgical and pediatric clinical situations. Preparatory instruction is provided for mechanical ventilation and other critical care procedures.

3 Credit Hours. 0 Lecture Contact Hours. 16 Lab Contact Hours.
Grade Mode: Standard Letter

about RC Clinical Practice II
RC 3324. Critical Care Instrumentation.
A comprehensive study of advanced equipment and technology utilized in the critical care, homecare, pulmonary rehabilitation and blood gas lab settings. Lectures and class activities will detail hardware for hemodynamic monitoring, supplemental oxygen administration, noninvasive monitoring, blood gas measurement, quality control and assurance and mechanical ventilator concepts.

about Critical Care Instrumentation
3 Credit Hours. 2 Lecture Contact Hours. 3 Lab Contact Hours.
Grade Mode: Standard Letter
about Critical Care Instrumentation

RC 3333. RC Clinical Practice III.
A supervised clinical education experience in which the student administers advanced respiratory therapeutics to patients in the adult critical care setting. Diagnostic and monitoring procedures, including arterial blood gases, bedside physiologic monitoring, airway care, advanced pulmonary function testing, ventilator management will be performed according to physician orders.

about RC Clinical Practice III
3 Credit Hours. 0 Lecture Contact Hours. 16 Lab Contact Hours.
Grade Mode: Standard Letter
about RC Clinical Practice III

RC 3334. Neonatal Respiratory Care.
An in-depth study of neonatal utero development, fetal lung development, fetal circulation, and cardiovascular changes at birth. Neonatal respiratory emergencies, neonatal respiratory diseases and management, congenital defects, and respiratory care procedures specific to the neonate will be discussed. A specific emphasis on neonatal mechanical ventilation will be included.

about Neonatal Respiratory Care
3 Credit Hours. 2 Lecture Contact Hours. 3 Lab Contact Hours.
Grade Mode: Standard Letter
about Neonatal Respiratory Care

RC 3335. RC Clinical Practice IV.
This course provides an advanced clinical education experience in respiratory therapeutics on patients in the adult critical care setting. Appropriate clinical expectations include experience in arterial blood gas procurement and measurement, bedside physiologic monitoring, airway care, and monitoring of mechanical ventilation in the intensive care unit.

about RC Clinical Practice IV
3 Credit Hours. 0 Lecture Contact Hours. 16 Lab Contact Hours.
Grade Mode: Standard Letter
about RC Clinical Practice IV

RC 4211. Respiratory Care Research.
This course provides an introduction to applied experimental design, research ethics, and data analysis focusing on the respiratory care profession. Students will participate in each step the research process from developing a personal research hypothesis and research design through IRB submission. Prerequisite: HP 3302 or equivalent.

about Respiratory Care Research
2 Credit Hours. 2 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Exclude from 3-peat Processing
Grade Mode: Standard Letter
about Respiratory Care Research

RC 4212. Critical Care Clinical Simulation.
This course will prepare respiratory care students to successfully navigate multiple clinical simulation patient cases. Clinical simulations covered reflect real-life patient scenarios and mirror the content found on national board exams. Students will receive focused attention on board exam review and evidence-based care.

about Critical Care Clinical Simulation
2 Credit Hours. 1 Lecture Contact Hour. 3 Lab Contact Hours.
Grade Mode: Standard Letter
about Critical Care Clinical Simulation

RC 4223. ICU Internship.
Through affiliations with agencies, hospitals and selected treatment centers, the student interns in the intensive care setting by providing patient care and administering critical care therapeutics. Analysis and clinical application of advanced ventilator care of patients is emphasized along with patient care diagnostics and management in the ICU.

about ICU Internship
2 Credit Hours. 0 Lecture Contact Hours. 8 Lab Contact Hours.
Grade Mode: Credit/No Credit
about ICU Internship

RC 4224. Research Seminar.
A study of the research process from a review of research design to methodology implementation including data collection, statistical analysis, and presentation of a research proposal on a topic in the respiratory care discipline. The course provides direct research experience culminating in a research paper and presentation.

Prerequisite: RC 4211.

about Research Seminar
2 Credit Hours. 2 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Exclude from 3-peat Processing
Grade Mode: Standard Letter
about Research Seminar

RC 4225. Specialization Internship.
This course provides the student with an internship opportunity to gain clinical experience in sub-specialty areas including pediatrics, adult intensive care, neonatal intensive care, pulmonary function testing, home care/durable medical equipment, subacute care, pulmonary rehabilitation, polysomnography, education, and research. Specific specialty offerings will be based on clinical availability.

about Specialization Internship
2 Credit Hours. 0 Lecture Contact Hours. 8 Lab Contact Hours.
Course Attribute(s): Exclude from 3-peat Processing
Grade Mode: Credit/No Credit
about Specialization Internship

This course provides an in-depth study of specific adult mechanical ventilators addressing traditional and proposed ventilator classification, various methods of operation, parameter interrelationships and ventilator patient monitoring. Lectures and class activities will focus on ventilator analysis of several contemporary volume-, time-, pressure- and flow-cycled ventilators with advanced graphics interpretation required.

about Advanced Ventilator Concepts
3 Credit Hours. 2 Lecture Contact Hours. 3 Lab Contact Hours.
Grade Mode: Standard Letter
about Advanced Ventilator Concepts
RC 4316. RC Clinical Practice IV.
This course provides an advanced intensive care clinical education requiring students to monitor and administer critical care therapeutics on assigned patients in the adult and neonatal critical care setting. Cardiopulmonary diagnostic experience will be gained through arterial blood gas and co-oximetry assessment with ventilator graphic analysis.
about RC Clinical Practice IV
3 Credit Hours. 0 Lecture Contact Hours. 16 Lab Contact Hours.
Grade Mode: Standard Letter

RC 4317. Pulmonary Rehabilitation.
This course is designed to introduce students to the medical, ethical, and insurance reimbursement issues of pulmonary rehabilitation, homecare, and sleep diagnostic facilities. The role of therapists in case management, treatment requirements, and discharge planning along with the impact of legislation, regulations, and politics will be explored.
about Pulmonary Rehabilitation
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Grade Mode: Standard Letter

RC 4318. Independent Study in Respiratory Care.
This course provides the student an in-depth study on a topic or healthcare problem impacting respiratory care. The course may be repeated for credit with a different emphasis.
about Independent Study in Respiratory Care
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Exclude from 3-peat Processing
Grade Mode: Standard Letter

RC 4321. Leadership and Management for Respiratory Care Professionals.
This course is designed to comprehensively examine the dynamic evolution of respiratory care as a profession. The role of the respiratory care professional in the areas of leadership, management, and professional ethics will be explored with regards to the profession's impact on legislation, regulation, and politics. (WI).
about Leadership and Management for Respiratory Care Professionals
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Writing Intensive
Grade Mode: Standard Letter

RC 4322. RC Practitioner Seminar.
Students will research and present selected case studies by students to physicians, therapists, and colleagues. Presentations will emphasize total patient management with etiology, symptoms, pathophysiology, diagnosis, and treatment of specific diseases including asthma, pulmonary embolism, CHF, COPD, ARDS, neurologic diseases, inhalational injury, pneumonia, sleep disordered breathing, AIDS, and drug overdose. (WI).
about RC Practitioner Seminar
3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.
Course Attribute(s): Writing Intensive
Grade Mode: Standard Letter

Alexander, John Lewis, Lecturer, Respiratory Care, B.S.R.C., Texas State University
Armstead, Sharon V, Clinical Assistant Professor, Respiratory Care, M.B.A., Grand Canyon University
Barile, John Steele, Lecturer, Respiratory Care, B.S.R.C., Texas State University
Collins, Kevin P, Assistant Professor, Respiratory Care, M.S., Northeastern University
Decoux, Troy T, Lecturer, Respiratory Care, B.S., Louisiana State Univ Medical Cntr
Farmer, Timothy Aaron, Lecturer, Respiratory Care, M.S., Northeastern University
Franklin, Geri C, Lecturer, Respiratory Care, B.H.S., Florida Atlantic University
Gomez, Valerie M, Lecturer, Respiratory Care, B.S.R.C., Texas State University
Gonzales, Joshua F, Associate Professor, Respiratory Care, M.H.A., Webster University
Gonzalez, Gabriel Cardoza, Lecturer, Respiratory Care, B.S.R.C., Texas State University
Harkins, Lynda T, Clinical Associate Professor, Respiratory Care, Ph.D., University of Texas at Austin
Henry, Nicholas Richard, Assistant Professor, Respiratory Care, M.S., Northeastern University
Hong, Song Min, Lecturer, Respiratory Care, M.D., Univ of Texas Medical Branch
Lloyd, Jordan Gambrell, Lecturer, Respiratory Care, B.S.R.C., Texas State University
Marshall, S Gregory, Chair - Professor, Respiratory Care, Ph.D., University of Texas at Austin
Mendoza, Emily Elizabeth, Lecturer, Respiratory Care, B.S.R.C., Texas State University
Munoz, Aaron, Lecturer, Respiratory Care, B.S., Univ of Tex Hlth Sci San Antonio
Petroff, Peter A, Clinical Professor, Respiratory Care, M.D., Univ of Illinois at Chicago
Robbins, Ross Burnett, Lecturer, Respiratory Care, B.S.R.C., Dillard University
Russian, Christopher J, Associate Professor, Respiratory Care, Ph.D., Texas State University
Salmon, Megan Elizabeth, Lecturer, Respiratory Care, B.S.R.C., Texas State University
Wharton, Billy J, Instructor, Respiratory Care, B.S.H.P., Texas State University