

MASTER OF SCIENCE IN RESPIRATORY CARE (M.S.R.C.) MAJOR IN RESPIRATORY CARE (LEADERSHIP CONCENTRATION)

Major Program

This advanced online post-professional master's degree program offers practicing registered respiratory therapists (RRT) the opportunity to pursue current and emerging knowledge in the evolving respiratory care discipline within specific concentration areas. The program will prepare respiratory therapists seeking career advancement opportunities through graduate education for advanced respiratory care leadership roles, for healthcare-based clinical educators' positions, and for academic educators' positions in the discipline of respiratory care.

The educational objectives of the program are:

1. To provide a degree program that will prepare students for the emerging roles and functions within the respiratory care domains of leadership and clinical specializations.
2. To provide graduate level education that will prepare students to advance problem-solving skills with the ability to analyze and evaluate systems, technology, regulations, data needs to assist in creating new programs and systems, and policy development.
3. To provide a broad-based program of coursework that supports the varied aspects of RC practice focusing on management, supervision, education, evidence-based medicine, and healthcare research.
4. To provide coursework to prepare graduates to better serve as leaders and physician-extenders in clinical, managerial, and extended care settings.

Application Requirements

The items listed below are required for admission consideration for applicable semesters of entry during the current academic year. Submission instructions, additional details, and changes to admission requirements for semesters other than the current academic year can be found on The Graduate College's website (<http://www.gradcollege.txstate.edu>). International students should review the International Admission Documents webpage (<http://mycatalog.txstate.edu/graduate/admission-documents/international>) for additional requirements.

- completed online application
 - \$55 nonrefundable application fee
- or
- \$90 nonrefundable application fee for applications with international credentials
 - baccalaureate degree from a regionally accredited university (U.S. Citizens)

- International applicants not eligible for the NBRC RRT credential must have a baccalaureate degree in Respiratory Care/Therapy
- official transcripts from **each institution** where course credit was granted
- minimum 2.75 GPA in the last 60 hours of undergraduate course work (plus any completed graduate courses)
- GRE not required
- proof of the RRT national credential administered through the NBRC (U.S. Citizens)
 - International students not eligible for the NBRC credential must complete their country's credentialing exam, if one exists
- resume/CV
- statement of purpose indicating ability and interest in completing the degree program
- three letters of recommendation from professionals or academics competent to assess the student's interest in pursuing a career or advancing in the field of study

TOEFL or IELTS Scores

Non-native English speakers who do not qualify for an English proficiency waiver:

- official TOEFL iBT scores required with a 78 overall
- official IELTS (academic) scores required with a 6.5 overall with minimum individual module scores of 6.0

This program does **not** offer admission if the scores above are not met.

Degree Requirements

The Master of Science in Respiratory Care (M.S.R.C.) degree with a major in Respiratory Care concentration in Leadership requires 36 semester credit hours.

Course Requirements

Code	Title	Hours
Required Courses		
RC 5301	Advanced Cardiopulmonary Physiology	3
RC 5302	Clinical Practice Guidelines and Respiratory Care Protocols	3
RC 5303	Respiratory Care Research Methods and Design	3
RC 5304	Cardiopulmonary Disease Patient Education	3
RC 5305	Respiratory Care Applied Research	3
RC 5306	Academic Leadership in Respiratory Care	3
RC 5307	Advanced Respiratory Care Seminar	3
RC 5308	Advanced Cardiopulmonary Diagnostics and Therapeutics	3
Concentration		
HA 5304	Healthcare Economics and Financial Theory	3
HA 5321	Healthcare Law	3
HA 5362	Healthcare Organizational Behavior/Theory	3
HS 5315	Principles of Healthcare Finance for Clinical Leaders	3
Total Hours		36

Comprehensive Examination Requirements

All candidates for graduate degrees must pass one or more comprehensive examinations.

Master's level courses in Respiratory Care: RC

Courses Offered Respiratory Care (RC)

RC 5211. Polysomnography Instrumentation.

Designed to teach the function, operation, and design of electroneurodiagnostic equipment. Monitoring devices, electrode application, and patient connection will be covered in detail. Prerequisite: Departmental approval.

2 Credit Hours. 0 Lecture Contact Hours. 2 Lab Contact Hours.

Grade Mode: Standard Letter

RC 5214. Sleep Staging and Diagnostics.

Advanced study of waveform characteristics and montage development, filters, and PSG electronics. Signal pathways, reference electrodes, impedance checking and filter settings in calibration waves will be covered. Prerequisite: Departmental approval.

2 Credit Hours. 0 Lecture Contact Hours. 2 Lab Contact Hours.

Grade Mode: Standard Letter

RC 5215. Clinical Polysomnography-Sleep Staging.

Advanced clinical education in sleep staging rules, light, delta and REM sleep scoring and analysis. EEG, EMG, ECG and respiratory events will be discussed in depth and are components of the polysomnogram report. A research project and presentation will be assigned by the faculty. Prerequisite: Departmental approval required.

2 Credit Hours. 0 Lecture Contact Hours. 10 Lab Contact Hours.

Grade Mode: Standard Letter

RC 5301. Advanced Cardiopulmonary Physiology.

An in-depth study of cardiovascular and respiratory physiology. This course investigates pathologic physiological changes, adaptive mechanisms, and interrelationships of the cardiopulmonary systems. Students will apply advanced cardiopulmonary physiology to the management of patients requiring respiratory care services.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

RC 5302. Clinical Practice Guidelines and Respiratory Care Protocols.

An examination of the roles of clinical practice guidelines and protocols in the continuum of patient care. Analysis of the development, modification, initiation, and evaluation of patient outcomes will be covered. Barriers to protocol practice and strategies for implementation will be explored. Evidence-based outcomes will be summarized through literature reviews.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

RC 5303. Respiratory Care Research Methods and Design.

Provides an in-depth study of medical research including evaluation of published, peer-reviewed research designs. Students examine research articles and evaluate evidence-based research findings. Topics include: research ethics, sampling and research design, test statistics, conclusions, and practical versus statistical significance. Students will explore research protocol development, research proposals, and project management.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

RC 5304. Cardiopulmonary Disease Patient Education.

A comprehensive study of patient education and self-management of cardiopulmonary disease exacerbations including disease information, prevention and treatment. Programs for patient self-assessment, treatment efficiency, adjustment of drug regimen, behavior modification, and nicotine addiction will be examined. Methods for documenting outcomes and patient behavior modification will be covered.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

RC 5305. Respiratory Care Applied Research.

This course offers an opportunity to apply research methods and design concepts. Students will design and submit a research proposal to the Texas State University's Institutional Review Board (IRB) for approval. Prerequisite: RC 5303 with a grade of "B" or better.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

RC 5306. Academic Leadership in Respiratory Care.

Introduction to the foundations necessary to build a strong understanding of academic administration, fiscal planning, curriculum development, and outcomes assessment for respiratory therapist programs. Topics include preparation of annual accreditation reports, organization of clinical practice rotations, the role of advisory committees, and integration of didactic, laboratory, and clinical experiences.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

RC 5307. Advanced Respiratory Care Seminar.

In-depth discussion of topics related to current issues and trends in the profession and the impact on patient care services. Includes journal review, group discussion, project development, and online presentation.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

RC 5308. Advanced Cardiopulmonary Diagnostics and Therapeutics.

An overview of advanced cardiopulmonary diagnostic and therapeutic procedures addressing selected disorders including asthma, chronic obstructive lung diseases, restrictive lung diseases, pulmonary edema, congestive heart failure, and cardiac disorders. International disease standards and classifications established by the World Health Organization with appropriate treatment protocols will be discussed.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

RC 5310. Fundamentals of Polysomnography.

Introduction to the physiology of sleep, including sleep neurology, sleep architecture, and classification of sleep disorders. Review of basic cardiac physiology and ECG arrhythmia recognition. Sleep pathologies will be discussed according to etiology, pathophysiology, symptoms, diagnosis, treatment, and prognosis. Prerequisite: Departmental approval.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter

RC 5313. Polysomnographic Therapeutic Intervention.

In-depth study of the treatments available for sleep apnea including, CPAP, BiPAP, oxygen therapy, patient adjunctive fitting, surgical intervention, and the role of the sleep tech in titration. Special attention will be given to titration algorithms, nocturnal seizure disorder studies, REM behavior disorder studies, MSLT's, and MTW's. Prerequisite: Departmental approval.

3 Credit Hours. 3 Lecture Contact Hours. 0 Lab Contact Hours.

Grade Mode: Standard Letter