

RESPIRATORY CARE

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Website: <https://www.st-marys.org/careers-and-education/school-of-respiratory-care/>

The Bachelor of Science in Respiratory Care Program is a cooperative effort between the Marshall University College of Health Professions and St. Mary's School of Nursing and Health Professions. This program may be completed in four academic years and requires 121 credit hours.

General education courses are offered on the Marshall University Huntington campus and respiratory courses are offered at St. Mary's Medical Center School of Respiratory Care.

Graduates of this program receive a Bachelor of Science in Respiratory Care degree from Marshall University and are eligible to make application to the National Board of Respiratory Care for the advanced respiratory care practitioner credentialing examination.

Accreditation

The St. Mary's/Marshall University Cooperative Bachelor of Science in Respiratory Care program is accredited by the Committee on Accreditation for Respiratory Care (CoARC), 1248 Harwood Road Bedford, TX 76021, 1-817-283-2835, www.coarc.com/ (<https://www.coarc.com/>).

Admission Requirements

All applicants must be either a graduate of an accredited high school or have a high school equivalent through GED testing. Students who have fewer than 12 hours of college credits are required to have taken the ACT examination.

High School Seniors and Applicants Who Have Completed Fewer than 12 College Credit Hours Must Have:

- A minimum high school GPA of 3.0
- A minimum of C on all college courses completed

The Following High School Courses are Strongly Recommended:

- English - 4 units
- Science - 3 units (chemistry, biology I and biology II)
- Math - 2 units (one should be algebra)
- Social Studies - 3 units

Applicants Who Have Completed at Least 12 College Credit Hours Must Have:

- A minimum of C on each required non-respiratory course completed
- An overall 2.0 GPA (C average) or better on **all** courses completed
- An overall 2.0 GPA on all courses completed at Marshall University
- Taken 12 college semester credit hours at the 100 level or above for a grade

GED Applicants Must:

- Meet criteria for GED admission as stated in the Marshall University undergraduate catalog
- Have completed at least 12 college credit hours at the 100 level and earned grades of C or above
- Meet criteria for applicants who have completed at least 12 college credit hours


Tuition Assistance Program

The Marshall University Employee Dependent Undergraduate Tuition Assistance Program cannot be used to cover the tuition and fees of the St. Mary's/Marshall University cooperative programs, which include medical imaging, nursing, and respiratory care. These programs are classified as third-party waiver programs, which are exempted from the Employee Dependent Tuition Assistance Program.

Programs

- Respiratory Care, B.S. (<http://catalog.marshall.edu/undergraduate/programs-az/health-professions/respiratory-care/respiratory-care-bs/>)
- RRT to B.S.R.C. Technology Enhanced Program (<http://catalog.marshall.edu/undergraduate/programs-az/health-professions/respiratory-care/rrt-bsrc-technology-enhanced-program/>)

Courses

 - General Education Course

RSP 100 Respiratory Pharmacology

3 Credit hours

Introduces the student to basic pharmacology of medicines used in respiratory care and physiological implications on the human body.

Pre-req: BSC 227 (may be taken concurrently) with a minimum grade of C and BSC 228 with a minimum grade of C and BSC 250 with a minimum grade of C and RSP 101 with a minimum grade of C and RSP 102 with a minimum grade of C and RSP 102L with a minimum grade of C.

Concurrent PR: BSC 227

Co-req: RSP 201, RSP 202, RSP 203

Grade Mode: Normal Grading Mode

RSP 101 Intro to Respiratory Care

3 Credit hours

Introduces the student to the history of respiratory care and professional organizations. Emphasis is on the role of the respiratory therapist as a member of the health care team.

Pre-req: BSC 227 with a minimum grade of C and BSC 228 with a minimum grade of C.

Co-req: RSP 102, RSP 102L

Grade Mode: Normal Grading Mode

RSP 102 Intro Resp Care Procedures

3 Credit hours

Administration of medical gases, humidity and aerosol therapy with emphasis on the handling of medical gases and safety in administration. Techniques of therapeutic procedures used in respiratory care are included.

Pre-req: BSC 227 with a minimum grade of C and BSC 228 with a minimum grade of C.

Co-req: RSP 101, RSP 102L

Grade Mode: Normal Grading Mode

RSP 102L Respiratory Lab**1 Credit hour**

Administration of medical gases, humidity and aerosol therapy with emphasis on the handling of medical gases and safety in administration. Techniques of therapeutic procedures used in respiratory care are included.

Pre-req: BSC 227 with a minimum grade of C and BSC 228 with a minimum grade of C.

Co-req: RSP 101, RSP 102

Grade Mode: Normal Grading Mode

RSP 200B Concepts of Respiratory Care**5 Credit hours**

Designed for the board certified and state licensed CRT to enter into advanced respiratory practice. Emphasis is on concepts and principles for professional practice as an RRT.

Grade Mode: Normal Grading Mode

RSP 201 Pulmonary Pathophys**3 Credit hours**

Emphasis is placed on the etiology, signs and symptoms, pathology, clinical manifestations, sequelae, and treatment. The respiratory therapist's role in the recognition and treatment of pulmonary diseases is highlighted.

Pre-req: BSC 227 with a minimum grade of C and BSC 228 with a minimum grade of C and BSC 250 with a minimum grade of C and RSP 101 with a minimum grade of C and RSP 102 with a minimum grade of C and RSP 102L with a minimum grade of C.

Co-req: RSP 100, RSP 202, RSP 203

Grade Mode: Normal Grading Mode

RSP 202 Mech Vent Tech & MGT**3 Credit hours**

An introduction to the fundamentals of mechanical ventilation techniques and terminology. Monitoring and the ability to solve clinical problems relating to mechanical ventilation are emphasized. Lab included.

Pre-req: BSC 227 with a minimum grade of C and BSC 228 with a minimum grade of C and BSC 250 with a minimum grade of C and RSP 101 with a minimum grade of C and RSP 102 with a minimum grade of C and RSP 102L with a minimum grade of C.

Co-req: RSP 100, RSP 201, RSP 203

Grade Mode: Normal Grading Mode

RSP 203 Respiratory Internship I**4 Credit hours**

Emphasis is on information gathering from the patient record, physical evaluation of the patient and basic respiratory interventions.

Pre-req: BSC 227 with a minimum grade of C and BSC 228 with a minimum grade of C and BSC 250 with a minimum grade of C and RSP 101 with a minimum grade of C and RSP 102 with a minimum grade of C and RSP 102L with a minimum grade of C.

Co-req: RSP 100, RSP 201, RSP 202

Grade Mode: Normal Grading Mode

RSP 204 Pulmonary Rehab/Home Care**1 Credit hour**

Emphasis on the care of the patient with long term pulmonary disability requiring home care. Psychosocial and physical needs are addressed with emphasis of quality of life and cardiopulmonary reserve.

Pre-req: RSP 203 with a minimum grade of C.

Co-req: RSP 205, RSP 206, RSP 207, RSP 208, RSP 209

Grade Mode: Normal Grading Mode

RSP 205 Cardiopulmonary Diag**3 Credit hours**

Emphasis on advanced techniques of pulmonary function testing. Topics include lung volume determination, diffusion/distribution of ventilation, invasive and non invasive methods of arterial blood gas sampling, analysis, and interpretation.

Pre-req: RSP 203 with a minimum grade of C.

Co-req: RSP 206, RSP 207

Grade Mode: Normal Grading Mode

RSP 206 Neonatal/Pediatric Care**3 Credit hours**

Provide knowledge of neonatal/pediatric patients; fetal cardiopulmonary development and changes at birth, care methods used and evaluation of neonatal and pediatric patients are covered.

Pre-req: RSP 100 with a minimum grade of C and RSP 201 with a minimum grade of C and RSP 202 with a minimum grade of C and RSP 203 with a minimum grade of C.

Co-req: RSP 207, RSP 208, RSP 209, RSP 211, RSP 212

Grade Mode: Normal Grading Mode

RSP 207 Intro Critical Care MGT**3 Credit hours**

Designed to provide the student with knowledge of airway management, transtracheal oxygen therapy and aspiration, bronchoscopy, thoracentesis, pleural chest tubes, arterial lines, ABG interpretation and analysis, transports, and electrocardiogram interpretation.

Pre-req: RSP 100 with a minimum grade of C and RSP 201 with a minimum grade of C and RSP 202 with a minimum grade of C and RSP 203 with a minimum grade of C.

Co-req: RSP 206, RSP 208, RSP 209, RSP 211, RSP 212

Grade Mode: Normal Grading Mode

RSP 208 Respiratory Care Seminar**1 Credit hour**

Introduces the student to NBRC exam taking skills, mock examinations of the NBRC matrix, realistic clinical problems and situations with emphasis on critical thinking and problem solving.

Pre-req: RSP 100 with a minimum grade of C and RSP 201 with a minimum grade of C and RSP 202 with a minimum grade of C and RSP 203 with a minimum grade of C.

Co-req: RSP 206, RSP 207, RSP 209, RSP 211, RSP 212

Grade Mode: Normal Grading Mode

RSP 209 Respiratory Internship II**4 Credit hours**

Emphasis is on supervised practice of humidity and aerosol therapy, aerosol drug therapy, lung inflation therapy and techniques used in electrocardiography.

Pre-req: RSP 100 with a minimum grade of C and RSP 201 with a minimum grade of C and RSP 202 with a minimum grade of C and RSP 203 with a minimum grade of C.

Co-req: RSP 206, RSP 207, RSP 208, RSP 211, RSP 212

Grade Mode: Normal Grading Mode

RSP 210 Respiratory Internship III**4 Credit hours**

Emphasis is on supervised practice of arterial blood gas sampling and analysis, arterial line management, chest tube management, ECGs observation of hemodynamic measurement and monitoring, IABP management.

Pre-req: RSP 100 with a minimum grade of C and RSP 201 with a minimum grade of C and RSP 202 with a minimum grade of C and RSP 203 with a minimum grade of C and RSP 209 with a minimum grade of C.

Co-req: RSP 303, RSP 309

Grade Mode: Normal Grading Mode

- RSP 211 Dynamics of Pulmonary** **2 Credit hours**
Emphasis is placed on the interaction of systems in gas exchange and renal involvement in acid base balance.
Pre-req: RSP 100 with a minimum grade of C and RSP 201 with a minimum grade of C and RSP 202 with a minimum grade of C and RSP 203 with a minimum grade of C.
Co-req: RSP 206, RSP 207, RSP 208, RSP 209, RSP 212
Grade Mode: Normal Grading Mode
- RSP 212 Acute/Chronic Pulmonary Mgt** **3 Credit hours**
This is a 3 hour course with emphasis placed on pulmonary function testing/interpretation and care of a patient with long term pulmonary disability requiring home care and rehabilitation.
Pre-req: RSP 100 with a minimum grade of C and RSP 201 with a minimum grade of C and RSP 202 with a minimum grade of C and RSP 203 with a minimum grade of C.
Co-req: RSP 206, RSP 207, RSP 208, RSP 209, RSP 211
Grade Mode: Normal Grading Mode
- RSP 301 Intro Resp Care MGT** **3 Credit hours**
Introduces the student to the basic principles of management in the respiratory care department. Includes theory, scope of management, quality issues, budgeting, personnel issues, evaluation and application of management concept.
Grade Mode: Normal Grading Mode
- RSP 302 Respiratory Internship IV** **4 Credit hours**
Emphasis is on cardiopulmonary assessment and treatment of trauma, post-surgical, cardiac, renal, neonatal and pediatric patients with refinement of monitoring procedures and interpretation of data.
Pre-req: RSP 206 with a minimum grade of C and RSP 207 with a minimum grade of C and RSP 208 with a minimum grade of C and RSP 209 with a minimum grade of C and RSP 211 with a minimum grade of C and RSP 212 with a minimum grade of C.
Co-req: RSP 304, RSP 307, RSP 402
Grade Mode: Normal Grading Mode
- RSP 303 Clinical Respiratory Education** **3 Credit hours**
Designed as an introduction to clinical teaching in a respiratory care program. Emphasis is on instructional and evaluation strategies and development of performance objectives.
Pre-req: RSP 206 with a minimum grade of C and RSP 207 with a minimum grade of C and RSP 208 with a minimum grade of C and RSP 209 with a minimum grade of C and RSP 211 with a minimum grade of C and RSP 212 with a minimum grade of C.
Co-req: RSP 308
Grade Mode: Normal Grading Mode
- RSP 304 Adv Neonatal & Pediatrics** **3 Credit hours**
Advanced study of neonatal/pediatric pathophysiology including parenchymal disease, obstructive airway disease, lesions of the lungs and airways, congenital abnormalities, respiratory distress syndrome, apnea disorders, neurological disorders and trauma. (PR: RSP 206)
Pre-req: RSP 303 with a minimum grade of C and RSP 308 with a minimum grade of C.
Co-req: RSP 302, RSP 307, RSP 401
Grade Mode: Normal Grading Mode
- RSP 305 Resp Cost MGT & Solutions** **3 Credit hours**
Introduces the student to cost solutions for respiratory departments. Topics include annual budgets, purchasing decisions, effective staffing, inventory and supply controls and cost-containment methods.
Co-req: RSP 306
Grade Mode: Normal Grading Mode
- RSP 306 Resp Care Performance Improv** **3 Credit hours**
Provides basic principles associated with Total Quality Management (TQM) and Continuous Quality Improvement (CQI) to aid in problem identification and quality problem-solving for respiratory care departments.
Co-req: RSP 305
Grade Mode: Normal Grading Mode
- RSP 307 Adv Tech Adult Critical Care** **4 Credit hours**
Emphasis is on current respiratory care procedures for the critically ill adult patient with exploration into newer techniques.
Pre-req: RSP 303 with a minimum grade of C and RSP 308 with a minimum grade of C.
Co-req: RSP 302, RSP 304, RSP 401
Grade Mode: Normal Grading Mode
- RSP 308 Resp Mgt & Quality Improvement** **3 Credit hours**
This course introduces the student to basic management principles of a respiratory department. Discussion includes, scope of management, quality issues, budgeting, personnel issues, and evaluation and application of management concepts.
Pre-req: RSP 206 with a minimum grade of C and RSP 207 with a minimum grade of C and RSP 208 with a minimum grade of C and RSP 209 with a minimum grade of C and RSP 211 with a minimum grade of C and RSP 212 with a minimum grade of C.
Co-req: RSP 210, RSP 303
Grade Mode: Normal Grading Mode
- RSP 314 Adv Mechanical Ventilation** **3 Credit hours**
Advanced theory and application of mechanical ventilation. Study of various mechanical ventilators and artificial airways, with major emphasis placed on all aspects of the management of the patient-ventilator system.
Pre-req: RSP 202 with a minimum grade of C.
Grade Mode: Normal Grading Mode
- RSP 401 Intro to Sleep Disorders** **4 Credit hours**
Designed to teach how a polysomnogram is performed, the major categories of sleep disorders, the presenting symptoms of sleep apnea, narcolepsy, psychophysiological insomnia and sleep disturbance due to depression.
Pre-req: RSP 303 with a minimum grade of C and RSP 308 with a minimum grade of C.
Co-req: RSP 302, RSP 304, RSP 307
Grade Mode: Normal Grading Mode
- RSP 402 Respiratory MGT** **3 Credit hours**
Designed to examine respiratory care in rural America. This course will address the key issues confronting rural respiratory healthcare today, examine the causes and develop solutions to the issues.
Pre-req: RSP 302 with a minimum grade of C and RSP 303 with a minimum grade of C and RSP 304 with a minimum grade of C and RSP 307 with a minimum grade of C and RSP 308 with a minimum grade of C.
Co-req: RSP 403, RSP 404, RSP 420
Grade Mode: Normal Grading Mode

RSP 403 Respiratory Care Research 3 Credit hours

Designed to provide the student knowledge about survey of research problems, methods, and designs utilized in respiratory care, with emphasis on data presentation and analysis.

Pre-req: RSP 302 with a minimum grade of C and RSP 303 with a minimum grade of C and RSP 304 with a minimum grade of C and RSP 307 with a minimum grade of C and RSP 308 with a minimum grade of C and (STA 225 with a minimum grade of C or MGT 218 with a minimum grade of C or PSY 223 with a minimum grade of C or EDF 417 with a minimum grade of C or BSC 417 with a minimum grade of C).

Co-req: RSP 402, RSP 404, RSP 420

Grade Mode: Normal Grading Mode

RSP 404 Adv Respiratory Care Practicum 4 Credit hours

Advanced respiratory techniques and management for clients across the life-span.

Pre-req: RSP 302 with a minimum grade of C and RSP 303 with a minimum grade of C and RSP 304 with a minimum grade of C and RSP 307 with a minimum grade of C and RSP 308 with a minimum grade of C and (STA 225 with a minimum grade of C or MGT 218 with a minimum grade of C or PSY 223 with a minimum grade of C or EDF 417 with a minimum grade of C or BSC 417 with a minimum grade of C).

Co-req: RSP 402, RSP 403, RSP 420

Grade Mode: Normal Grading Mode

RSP 405 Flight/Hyperbaric Care 3 Credit hours

Advanced respiratory techniques related to physiologic stressors impacting patient care due to atmospheric impact and pressure gradients and unique hazards in these environments to patients and staff.

Co-req: RSP 420

Grade Mode: Normal Grading Mode

RSP 406 Community Respiratory Care 3 Credit hours

Designed for the student to provide care in a variety of settings including clinics, schools and other settings utilizing principles of public health and client and family teaching.

Grade Mode: Normal Grading Mode

RSP 407 Clinical Decision Making 3 Credit hours

The course focuses on gathering appropriate clinical information to make evidence-based decisions in the treatment for respiratory care diseases.

Pre-req: RSP 201 with a minimum grade of C.

Grade Mode: Normal Grading Mode

RSP 420 🏠 Capstone in Respiratory Care 5 Credit hours

Role synthesis practicum incorporating provider of care, coordinator of care, member of profession and leadership roles.

Pre-req: RSP 302 with a minimum grade of C and RSP 303 with a minimum grade of C and RSP 307 with a minimum grade of C and RSP 308 with a minimum grade of C and (STA 225 with a minimum grade of C or MGT 218 with a minimum grade of C or PSY 223 with a minimum grade of C or EDF 417 with a minimum grade of C or BSC 417 with a minimum grade of C).

Co-req: RSP 402, RSP 403, RSP 404

Attributes: Capstone Course

Grade Mode: Normal Grading Mode

RSP 480 Special Topics 1-4 Credit hours

Study of topics not available in other courses.

Grade Mode: Normal Grading Mode

RSP 481 Special Topics 1-4 Credit hours

Study of topics not available in other courses.

Grade Mode: Normal Grading Mode

RSP 482 Special Topics 1-4 Credit hours

Study of topics not available in other courses.

Grade Mode: Normal Grading Mode

RSP 483 Special Topics 1-4 Credit hours

Study of topics not available in other courses.

Grade Mode: Normal Grading Mode

RSP 485 Independent Study 1-4 Credit hours

Course will consist of directed and independent readings, directed and independent research, problem reports, or tutorials. Will allow students to complete individualized learning in respiratory care.

Grade Mode: Normal Grading Mode

RSP 486 Independent Study 1-4 Credit hours

Course will consist of directed and independent readings, directed and independent research, problem reports, or tutorials. Will allow students to complete individualized learning in respiratory care.

Grade Mode: Normal Grading Mode

RSP 487 Independent Study 1-4 Credit hours

Course will consist of directed and independent readings, directed and independent research, problem reports, or tutorials. Will allow students to complete individualized learning in respiratory care.

Grade Mode: Normal Grading Mode

RSP 488 Independent Study 1-4 Credit hours

Course will consist of directed and independent readings, directed and independent research, problem reports, or tutorials. Will allow students to complete individualized learning in respiratory care.

Grade Mode: Normal Grading Mode

Faculty

Program Director

Chuck Zuhars, M.S., ED, RRT