



## CENTER FOR EDUCATION

Catalog  
2025 - 2026

SCHOOL OF NURSING  
SCHOOL OF RESPIRATORY CARE  
SCHOOL OF MEDICAL IMAGING  
SCHOOL OF SONOGRAPHY

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Revised 3/2010; 7/2010, 12/11/12., 2/22/13, 6/13, 7/15, 7/17; 8/17; 8/18; 1/19; 5/19; 6/19; 8/19; 5/20;  
5/21; 7/21; 6/22; 6/23; 6/24; 7/24

**ST. MARY'S MEDICAL CENTER  
CENTER FOR EDUCATION**

**Letter to Prospective Student**

Dear Prospective Student:

Thank you for your interest in pursuing a health care career at St. Mary's Medical Center. On behalf of the faculty and staff of the Center for Education, I welcome you. It is our desire to be of assistance to you as you seek to fulfill your personal goals and aspirations to learn to provide competent and compassionate care.

Please read the information in this catalog as it relates to the school to which you are applying. An application that is incomplete will not be considered for admittance. Admittance is based on a point system. Therefore, it is essential that you closely examine the admission criteria.

Again, we are pleased that you have chosen one of our three schools to prepare you for a career in health care. We wish you well in your endeavors.

Sincerely,

Dr. Joey Trader  
Vice-President of Schools of Nursing and Health Professions

**ST. MARY'S MEDICAL CENTER  
CENTER FOR EDUCATION**

**SCHOOL OF NURSING, SCHOOL OF MEDICAL IMAGING, SCHOOL OF SONOGRAPHY,  
AND SCHOOL OF RESPIRATORY CARE**

**GENERAL INFORMATION**

St. Mary's Medical Center, a proud member of Marshall Health Network, was founded by the Missionary Sisters of the Catholic Apostolate. The Sisters are members of the Pallottine order. Their motto comes from their founder, St. Vincent Pallotti, CARITAS CHRISTI URGET NOS, which means THE LOVE OF CHRIST URGES US ON. The Center for Education at St. Mary's Medical Center is the home of St. Mary's School of Nursing, the School of Respiratory Care, the School of Medical Imaging, and the School of Sonography.

All four schools, in cooperation with Marshall University, offer collegiate degrees. Support courses for all four schools are taught at Marshall University (the main Huntington campus or any of their off-campus sites). Support courses for the Associates of Applied Science in Respiratory Care and the Associates of Applied Science for Medical Imaging are taught at Mountwest Community and Technical College. The specific professional courses for all four schools are taught at the Center for Education. Upon completion of any of the programs, the graduates are eligible to apply for licensure or certification from their respective boards.

The faculty continue to meet the challenges of health care demands and the changes within the surrounding community in order to meet the needs for professional health care providers. Students have modern clinical facilities within St. Mary's Medical Center, which is a licensed 393 bed medical center. The medical center offers broad health care experiences in surgery, medicine, psychiatry, and extended care. The medical center is accredited by The Joint Commission, and has membership in The Catholic Health Association, The American Hospital Association, and the West Virginia Hospital Association

Students in the four schools have experiences in surrounding facilities that enhance their education while enrolled in the program. St. Mary's Medical Center and the Center for Education are conducted according to Catholic principles and teachings. The ethical Directives for Catholic Hospitals provide guidelines for students, staff and personnel in policy and decision-making related to medical-moral issues.

Since the founding of St. Mary's Medical Center in 1924, the Medical Center has grown to be one of the largest employers in the entire tri-state area and is a leader of healthcare services in the eastern part of the United States of America. From the humble beginnings of the dedicated Pallottine Sisters, many healthcare providers have made contributions world-wide and are known as St. Mary's graduates.

## **School of Nursing**

St. Mary's School of Nursing was founded by the Pallottine Sisters of the Catholic Apostolate in 1926. It is the oldest operating RN program in West Virginia and has 5,053 graduates as of May 2025.

St. Mary's School of Nursing, in cooperation with Marshall University, offers a two-year associate degree nursing program. The nursing courses are taught at St. Mary's School of Nursing, the support courses are taught at Marshall University. Upon completion of the program, the graduate receives an Associate in Science in Nursing Degree from Marshall University and is eligible to make application to take the NCLEX-RN for licensure to practice as a registered nurse. Graduates can articulate to baccalaureate in nursing programs on a full-time or part-time basis for career advancement.

## **School of Medical Imaging**

St. Mary's School of Medical Imaging (SOMI) is a hospital-based program in medical imaging and has partnered with Marshall University to offer a Baccalaureate in Science in Medical Imaging and also partnered with Mountwest Community and Technical College (MCTC) to offer an Associate of Applied Science. The program began in 1964 and entered into a cooperative agreement with Marshall University in 2009 and entered into a Cooperative agreement with MCTC in 2024. The program curriculum is designed to prepare students to practice radiography and introduce students to related specialized imaging modalities. The curriculum for the students who wish to pursue the Bachelor of Science in Medical Imaging degree is structured so that the entering freshman will complete all degree requirements within four years. The curriculum for the students who wish to pursue the Associate of Applied Science from MCTC is structured so that the entering freshman will complete all degree requirements within three years.

Upon satisfactory completion of all SOMI didactic and clinical course work and satisfaction of MU or MCTC general education requirements, graduates will be prepared to sit for the American Registry of Radiologic Technologists primary certification board.

Radiography is a multi-dimensional career that includes digital and computed radiography, trauma radiography and fluoroscopy. Radiographers have many advanced imaging opportunities available including computed tomography, magnetic resonance imaging and cardiovascular intervention radiography.

## **School of Respiratory Care**

The School of Respiratory Care was founded in 2005. There is a cooperative baccalaureate program with Marshall University and an Associate of Applied Science with Mountwest Community and Technical College. The support courses are taught at Marshall University and Mountwest Community and Technical College respectively, and the respiratory care classes are taught at St. Mary's School of Respiratory Care.

Respiratory therapists work with individuals with acute and chronic health problems, such as asthma, pneumonia, bronchitis, and many other breathing disorders. They also encounter persons who have

experienced a traumatic accident, experienced a heart attack, or the birthing of premature infants and patients in a pulmonary rehabilitation program.

## **School of Sonography**

### **PROGRAM OVERVIEW**

#### **PROGRAM OVERVIEW**

Established in 2013, St. Mary's/Marshall School of Sonography is a premier hospital-based educational program designed to equip students with the necessary skills and knowledge to excel in the field of diagnostic medical sonography. The program spans 36 months and is structured around a competency-based curriculum that integrates clinical training with didactic instruction, ensuring that graduates are fully prepared for entry-level employment as sonographers.

The School of Sonography operates as a cooperative baccalaureate program in collaboration with Marshall University. This partnership enhances educational experience by providing students with access to a diverse range of resources and expertise. The comprehensive curriculum covers a variety of sonography disciplines, including General Sonography, Obstetrical/Gynecologic Sonography, Cardiac Echocardiography (both fetal and adult), and Vascular Sonography.

Graduates of the Sonography program will be eligible to sit for the American Registry of Diagnostic Medical Sonography (ARDMS) certification examinations upon completion of their studies. Notably, students enrolled in an accredited sonography program through the Joint Review Committee on Education in Diagnostic Medical Sonography (JRC-DMS) and the Commission on Accreditation of Allied Health Education Programs (CAAHEP) can take the certification exam as early as six weeks prior to graduation.

As part of the program requirements, students must successfully complete the Sonography Principles and Instrumentation (SPI) examination at the end of their sophomore year. This prerequisite examination covers essential topics related to ultrasound physics and instrumentation and is crucial for progressing through the program. Additionally, to pursue specialty examinations, students must prepare a Curriculum Vitae (CV), which the program director will submit electronically to the ARDMS six weeks before graduation. It is important for graduates to be aware that CVs remain valid for five years; if specialty exams are not completed within this timeframe, graduates must contact the ARDMS to fulfill additional requirements.

The Sonography program comprises two principal components: a clinical component and an academic didactic component. Each element is strategically designed to reinforce the other, permitting students to apply theoretical knowledge in practical settings. The synergy between classroom instruction and supervised clinical practice enhances the learning experience, ensuring that students are competent in performing sonographic procedures upon entering the workforce.

St. Mary's/Marshall School of Sonography is dedicated to cultivating skilled and knowledgeable sonographers through a robust educational framework. By focusing on both clinical competencies

and theoretical understanding, the program prepares its graduates for successful careers in the dynamic field of sonography.

## **SCHOOL OF SONOGRAPHY MISSION STATEMENT**

At St. Mary's/Marshall School of Sonography, our mission is to cultivate highly qualified sonography professionals through innovative educational methodologies and a commitment to excellence. We dedicate ourselves to providing a comprehensive curriculum that adapts to the dynamic landscape of health care, ensuring our graduates are equipped with the requisite skills and knowledge to meet the evolving demands of the field.

Our esteemed faculty collaborates with both internal stakeholders and external healthcare organizations to create a vibrant learning environment that prioritizes responsiveness to local and national health care trends. By fostering interdisciplinary partnerships and promoting community engagement, we aim to enhance the educational experience and prepare our students to become multi-competent sonography professionals.

Through our unwavering dedication to student success, professional development, and adherence to the highest ethical standards, St. Mary's School of Sonography strives to be a leader in sonographic education, ultimately contributing to improved patient care and outcomes within the healthcare system.

## **PROGRAM PHILOSOPHY**

At St. Mary's/Marshall School of Sonography, we regard sonography as a unique fusion of art and science, rooted in our commitment to addressing the specific healthcare needs of our community. Our fundamental objective is to deliver exceptional outcomes while ensuring the highest quality of patient care. Achieving this goal necessitates a robust application of physical and biological sciences, complemented by effective communication and interpersonal skills.

We firmly believe that learning is a product of education, thriving on key elements such as motivation, readiness, interest, and perseverance. These factors are essential for fostering effective learning environments. We recognize that students flourish best in settings characterized by cooperative teacher-student relationships, which facilitate open dialogue and mutual respect.

Our sonography program is meticulously designed to guide students in acquiring the knowledge and competencies necessary for entry-level employment across various sonography fields. We understand that education does not conclude upon graduation; thus, we place significant emphasis on the importance of continuing education as a vital component of professional development.

The faculty is tasked with the responsibility of selecting, planning, organizing, implementing, and evaluating educational experiences in a progressive manner. This structured approach grants students' clear direction while accommodating individual differences in learning styles and needs.

Moreover, it is imperative for students to actively engage with faculty regarding all programmatic policies and procedures, as well as to fully participate in group activities. Such collaboration is essential for nurturing a cooperative environment that enhances student learning outcomes.

In summary, St. Mary's School of Sonography is dedicated to fostering an educational atmosphere that



harmonizes artistic and scientific principles, thereby equipping students with the tools necessary for professional success and lifelong learning in the field of sonography.

## **SCHOOL OF SONOGRAPHY GOAL**

To assure that St. Mary's/Marshall School of Sonography is effective in providing the highest quality educational opportunities to students as set forth in the *Standards of an Educational Program in Sonography* by the Joint Review Committee in Diagnostic Medical Sonography, the SOMI has developed an assessment plan based on the goals and expectations listed below.

The sonography program goals and expectations include preparing competent entry-level general sonographers in cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains. Prepare competent entry-level adult cardiac sonographers in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains. Prepare competent entry-level vascular sonographers in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains. The assessment plan and goals are evaluated on an annual basis and are published in an annual report to the advisory committee members.

## **Program Goals**

To prepare competent entry-level sonographers in the cognitive (knowledge), psychomotor (skills) and affective (behavior) learning domains for the following concentrations:

- Abdominal sonography - extended
- Obstetrics and gynecology sonography
- Adult cardiac sonography
- Vascular sonography

## APPLICATION PROCESS

Thank you for your interest in St. Mary's Sonography/MU School of Sonography is a very exciting and dynamic field that offers a wonderful blend of technology and patient interaction.

The St. Mary's Sonography/MU School of Sonography program is a four-year program and is accredited by the Joint Review Committee on Education in Diagnostic Medical Sonography (JRCEDMS) and Commission of Accreditation of Allied Health Education Program (CAAHEP). Please be advised that the sonography program is selective in its admission practices and can only offer a limited number of spaces to applicants each year. Acceptance into the program is contingent upon negative drug screening and a clear background check before the start of the first semester. The program reserves the right to request random drug screenings after admittance.

Students must apply to and be accepted into the Marshall University College of Health Professions. There is a \$30 non-refundable application fee. We accept applications from January 1 to May 10 of each year. The application process must be completed by May 10<sup>th</sup> of the year you are applying for admission.

Again, thank you for your interest in the program.

Download Application <https://stmarys.org>

Technical Standards form

Applications along with a Technical Standards Declaration (see Technical Standards below) may be downloaded and submitted electronically to [Patricia.Mannon@st-marys.org](mailto:Patricia.Mannon@st-marys.org) The \$30 application fee can be paid by credit card by contacting the St. Mary's Accounting Department at 304.526.8932 Alternatively, applications and the fee in the form of check or money order can be mailed to:

St Mary's Medical Center School of Medical Imaging  
2900 First Avenue  
Huntington, WV 25701

In addition to the application and technical standards form, we require a copy of high school transcripts and all college transcripts. Transcripts may be delivered electronically to [Patricia.Mannon@st-marys.org](mailto:Patricia.Mannon@st-marys.org) or mailed. We recommend requesting electronic delivery.

Minimum requirements for consideration are:

1. High school diploma or successful completion of the GED.
2. ACT score: 21 (additional points are given for ACT scores of 19 or better in math and science)
3. A minimum of 18 college credits (100 level courses or higher) from a regionally accredited institution must be completed or in progress prior to applying to the program.
4. A minimum overall GPA of 3.0 must be obtained on all college level courses. A minimum GPA of 3.0 must be obtained on all math and science courses.
5. A letter grade of "C" or better must be obtained in all prerequisite courses.

## **ACCEPTANCE PROCESS**

Applicants are scored and ranked based on overall course grades in prerequisite courses. ACT scores will be used in case of a tie. Students who took the SAT rather than the ACT will have the math and overall scores converted to ACT values.

Positions are offered to the top 4-8 applicants based on clinical availability and overall GPA points; however, we reserve the right to conduct personal interviews to assist in candidate selection. Remaining applicants comprise the alternate list for that year's admission. Alternates may be selected up to the beginning of the fall term.

## DISCLOSURE FORM – SONOGRAPHY

## Diagnostic Medical Sonography Program Effectiveness Data

Institution Information											
Institution Name:		Saint Mary's Medical Center									
Concentrations CAAHEP Accredited:		Abdominal-Extended, Obstetrics & Gynecology, Vascular and Adult Cardiac									
Student Retention: Total # of Graduates/Total # of Students Enrolled											
Cohort Number and/or Track Name		2023			2022			2021			3-Year Average Retention Rate
Cohort 1 General		# grads:	1 / 1	# Enrolled	# grads:	4 / 4	# Enrolled	# grads:	2 / 2	# Enrolled	100 %
			100 %			100 %			100 %		
Cohort 2 Cardiovascular		# grads:	3 / 3	# Enrolled	# grads:	2 / 2	# Enrolled	# grads:	3 / 3	# Enrolled	100 %
			100 %			100 %			100 %		
Job Placement: Total # of graduates employed in 6 months/Total # of Graduates											
Cohort Number and/or Track Name		2023			2022			2021			3-Year Average Job Placement Rate
Cohort 1 General		employed grads #:	1 / 1	# grads	employed grads #:	4 / 4	# grads	employed grads #:	2 / 2	# grads	100 %
			100 %			100 %			100 %		
Cohort 2 Cardiovascular		employed grads #:	3 / 3	# grads	employed grads #:	2 / 2	# grads	employed grads #:	3 / 3	# grads	100 %
			100 %			100 %			100 %		
Test-Takers Rate: Total # of Test-Takers/Total # of Graduates											
Cohort #	Select Concentration	2023									
1	Abdomen-Extended	# Test Takers:	1 / 1	# grads							
			100 %								
1	Obstetrics & Gynecology	# Test Takers:	1 / 1	# grads							
			100 %								
2	Vascular	# Test Takers:	0 / 0	# grads							
			0 %								
2	Adult Cardiac	# Test Takers:	3 / 3	# grads							
			100 %								
Credential Success Rate: Total # of Graduates successfully earning credential/Total # of Test Takers											
Cohort # & Concentration	Select Credentialing Exam(s)	2023			2022			2021			3-Year Average Success Rate
1. AB	RDMS(AB) or RT(S)	# earners:	1 / 1	# Test Takers	# earners:	1 / 1	# Test Takers	# earners:	2 / 2	# Test Takers	100 %
			100 %			100 %			100 %		
1. OB/GYN	RDMS(OBGYN) or RT(S)	# earners:	1 / 1	# Test Takers	# earners:	4 / 4	# Test Takers	# earners:	2 / 2	# Test Takers	100 %
			100 %			100 %			100 %		
2. VASC	RVT(VT) or RVS	# earners:	0 / 0	# Test Takers	# earners:	0 / 0	# Test Takers	# earners:	0 / 0	# Test Takers	0 %
			0 %			0 %			0 %		
2. AE	RDCS(AE) or RCS	# earners:	3 / 3	# Test Takers	# earners:	2 / 2	# Test Takers	# earners:	3 / 3	# Test Takers	100 %
			100 %			100 %			100 %		

## FINANCIAL INFORMATION: FEES AND OTHER EXPENSES

Unless otherwise noted, all fees are due at the beginning of each academic year. There is no difference in tuition for West Virginia residents or out-of-state residents. All fees are subject to change without notice.

Tuition is paid directly to Marshall University. Students who receive financial aid from Marshall may receive fall aid by August but must contact the Financial Aid office early to do so. Students may be granted a short-term extension in fee payment under extenuating circumstances.

### PROJECTED EXPENSES

Projected expenses apply to Sonography courses only at the CFE. Students who take coursework at Marshall University may have additional fees or other expenses.

Year One Fall		Year One Spring	
Tuition	4120	Tuition	4120
Books	800 (estimate)	Books	100
Uniforms	200 (estimate)		
Drug/Screen/Background check	100		
<b>Total</b>	<b>5220</b>	<b>Total</b>	<b>4220</b>
Year Two Fall		Year Two Spring	
Tuition	4120	Tuition	4120
Books	200 (estimate)	Books	100
<b>Total</b>	<b>4420</b>	<b>Total</b>	<b>4220</b>
Year Three Fall		Year Three Spring	
Tuition	4120	Tuition	
Books	100	Books	100
Fees (graduation)	50		
<b>Total</b>	<b>4270</b>		<b>4100</b>

Despite any policy to the contrary, for any students using U.S. Department of Veterans Affairs (VA) Post 9/11 G.I. Bill® (Ch. 33) or Vocational Rehabilitation and Employment (Ch. 31) benefits, while payment to the institution is pending from the VA, we will not:

- Prevent their enrollment.
- Assess a late penalty fee too.
- Require they secure alternative or additional funding.
- Deny their access to any resources (access to classes, libraries, or other institutional facilities) available to other students who have satisfied their tuition and fee bills to the institution.

However, to qualify for this provision, such students may be required to:

- Produce the VA's Certificate of Eligibility by the first day of class.
- Provide written requests to be certified.
- Provide additional information needed to properly certify the enrollment as described in other institutional policies (see our VA School Certifying Official for all requirements).

## TECHNICAL STANDARDS

Technical standards are those standards or abilities that a student must possess to be successful in this profession. All applicants are required to sign a Technical Standards Review Declaration Form to be submitted with application form.

Part of the training in radiologic technology involves working one on one with patients. Student technologists are responsible for the safety and well-being of their patients while performing examinations. The students will also be manipulating equipment where the potential injury to the patient and student is present.

#### 1. Motor Skills

- extend the hands and arms in any direction
- hold, grasp and turn with the hands
- safely lift, manipulate and use equipment
- reach up to six feet off the floor
- ability to coordinate eyes, hands and feet rapidly and accurately
- lift 30-35 lbs. waist high
- push and pull at least 100 lbs.

#### 2. Visual Acuity

- sufficient far vision to see objects beyond 20 feet
- sufficient near vision to see objects within 20 inches
- depth perception
- see in all directions
- observe and evaluate changes in the patient or equipment

#### 3. Communication Ability

- perceive the nature of sounds through hearing
- be able to speak, hear and observe patients
- express and exchange information through written and verbal communication

#### 4. Behavioral Skills

- function effectively under stress
- establish sensitive and cooperative relations with patients and co-workers
- adapt to changing environments

\*\* See Admission Above regarding Declaration Form\*\*

#### Credit Hour

One lecture credit hour is given for each 15 classroom contact hours, plus necessary outside preparation. For nursing courses, one laboratory credit hour requires at least 45 hours of laboratory work per credit hour, plus necessary outside preparation. Laboratory experiences are complements to classroom courses that focus on the theory and principles of the discipline.

## **FACULTY**

Dr. Joey Trader, Ed.D., MSN, RN, CNE

Vice President of Schools of Nursing and Health Professions

St. Mary's/Marshall University Cooperative ASN, Huntington, WV

Marshall University, Huntington, WV

Liberty University, Lynchburg, VA

Debra Arnett, BA, RT(R), (ARRT), (AB)(OBGYN)(FE)(BR)(PS), (ARDMS) RVT VT

Clinical Coordinator

Kings Daughter School of Radiology, Ashland, KY

Marshall University, Huntington, WV

Jane Mannon, MS, RT(R), (ARRT), (AB) (OBGYN), (ARDMS) RVT, VT

Program Director

School of Medical Imaging, St. Mary's Medical Center

Marshall University, Huntington, WV

Cody Nutter, BS, RDCS (ARDMS) RVT, VT

Concentration Coordinator

School of Medical Imaging, St. Mary's Medical Center

Marshall University, Huntington, WV

## **STAFF**

CFE Administrative Assistant

Paula Cremeans

304-526-1426

CFE Admissions Coordinator

Melba Curry

304-526-1423

CFE Admissions Coordinator

Leah Chapman

304-399-7110

## **PROCEDURE: Curriculum:**

In the Sonography program, students have a structured academic pathway that is designed to equip them with the necessary knowledge and skills for a successful career in medical imaging. During their sophomore year (Year 2), all students will follow a uniform curriculum before choosing their specialization track.

At the conclusion of the sophomore year, students must select from two distinct tracks:

1. **\*\*General/OB-GYN\*\***: This track focuses on general sonographic techniques and includes specialized training in obstetrics and gynecology.
2. **\*\*Cardiovascular\*\***: This track is tailored for those interested in cardiovascular sonography, concentrating on imaging of the heart and blood vessels.

To progress in the Sonography program, students must successfully pass the Sonography Principles and Instrumentation (SPI) physics exam at the end of their sophomore year. This

examination is critical for ensuring students have a foundational understanding of the principles that underpin sonographic practice.

It is essential for students to stay informed regarding the General Education requirements set forth by Marshall University (MU), as these may undergo modifications. Students are strongly advised to consult with the College of Health Professions at MU to ensure compliance with any updated criteria.

Before receiving their certificate from SMMC, students are required to fulfill all graduation requisites established by both Marshall University and SMMC. It is important to note that specific course sequences may change; therefore, students should regularly check for any updates or announcements concerning their curriculum.

Sonography students are permitted to take their certification examinations six weeks prior to graduation. This offers a strategic advantage, allowing students to complete necessary assessments and transition smoothly into their professional careers.

This structured approach ensures that students not only gain comprehensive knowledge and hands-on experience in their chosen field but also meet the rigorous standards required for certification and practice in sonography.

## Sonography Program Curriculum

**Total credit hours 124-129**

<b>First Year</b>	Courses in the First year are taken prior to admission in the BS in Sonography.”	
<b>First Semester</b>		<b>Credit Hours</b>
CMM103	Fund Speech-Communication	3
Eng 101	Beginning Composition	3
Math 121	Concepts and Applications (CT	3
BSC 227	Human Anatomy	3
BSC 227L	Human Anatomy Lab	1
CLS 105	Medical-Lab Terminology (CT)	3
UNI 100	Freshman First Class	1
		<b>Credit Hours 17</b>
<b>Second Semester</b>		
BSC 228	Human Physiology	3
BSC 228L	Human Physiology Lab	1
ENG 201	Advanced Composition	3
FYS 101	First Yr Sem Critical Thinking	3
PHY 101	Conceptual Physics	3
PHY 101L	Conceptual Physics Lab	1
Core II	Social Science	3
		<b>Credit Hours 17</b>
<b>Second Year</b>		
<b>First Semester</b>		
SONO 214	Intro to Sonography	3
SONO 213	Ultrasound Physics	3
SONO 212	Abdominal Sonography	4
SONO 210	Clinical I	4



MI 202	Patient Care Imaging Science	3
MI 204	Radiographic Anatomy	3
MI 211	Seminar	1
		<b>Credit Hours 21</b>
<b>Second Semester</b>		
MI 208	Pharmacology for Imaging	2
MI 304	Radiographic Pathology	3
MI 211	Seminar	1
SONO 316	Abdominal Sonography II	3
SONO 317	Physics II	3
SONO 220	Clinical II	4
		<b>Credit Hours 16</b>
<b>Third Year</b>		
<b>First Semester</b>		
MI 306	Seminar	1
SONO 310	Clinical III	4
SONO 315	Small Parts Sonography	3
SONO 318	Vascular Sonography I	4
	Core II Fine Arts	3
		<b>Credit Hours 15</b>
<b>OBGYN</b>		
<b>Second Semester</b>		
MI 311	Seminar	1
SONO 320	Clinical IV	4
SONO 416	Obstetrical Sonography I	3
SONO 424	Vascular Sonography II	3
	Core II Humanities	3
		<b>Credit Hours 15</b>
<b>Cardiovascular</b>		
MI 311	Seminar	1
SONO 320	Clinical IV	4
SONO 424	Vascular Sonography II	3
MI 407	Cardiovascular anatomy	3
	Core II Humanities	3
		<b>Credit Hours 14</b>
<b>Fourth Year</b>		
<b>First Semester</b>		
<b>OBGYN</b>		
MI 403	Adv Practice Medical Imaging	3
SONO 410	Clinical Practice V	4
SONO 418	Registry Review	1
SONO 417	Gynecological Sonography I	3
SONO 422	Obstetrical Sonography II	3
SONO 438 (OP)	Fetal Echo	3
		<b>Credit Hours 14</b>
<b>Cardiovascular</b>		
MI 403	Adv Practice Medical Imaging	3
SONO 410	Clinical Practice V	4

SONO 418	Registry Review	<b>1</b>
SONO 423	Adult Echocardiography I	<b>4</b>
		<b>Credit Hours 12</b>
<b>Second Semester</b>		
<b>OBGYN</b>		
MI 410	Research Medical Imaging	<b>3</b>
MI 411	Transcultural Health	<b>3</b>
SONO 436	Sonography Registry Review II	<b>1</b>
SONO 420	Clinical Practice VI	<b>4</b>
SONO 421	Gynecological Sonography II	<b>2</b>
		<b>Credit Hours 13</b>
<b>Cardiovascular</b>		
MI 410	Research Medical Imaging	<b>3</b>
MI 411	Transcultural Health	<b>3</b>
SONO 436	Sonography Registry Review II	<b>1</b>
SONO 420	Clinical Practice VI	<b>4</b>
SONO 425	Adult Echocardiography II	<b>4</b>
		<b>Credit Hours 15</b>

## COURSE DESCRIPTIONS

### MI 202 Patient Care in Imaging Science (3 Hrs.) Fall

Content is designed to provide the basic concepts of patient care, including consideration for the physical and psychological needs of the patient and family. Routine and emergency patient care procedures are described, as well as infection control procedures using standard precautions. The role of the radiographer in patient education is identified.

### MI 204 – Radiographic Anatomy (3 Hrs.) Fall

Content is designed to introduce the student to radiographic anatomy. The student will identify anatomical structures depicted on radiographs including film radiography and digital imaging. The student will be introduced to sectional anatomy as demonstrated with computed tomography, magnetic resonance imaging and sonography. Emphasis is placed on identifying structures visible on correctly performed radiographic procedures.

PR: BSC 227 & 227L, BSC 228 & 228L; CR: MI 205

### MI 208 – Pharmacology and Drug Administration (2 HR) Spring

Content is designed to provide basic concepts of pharmacology. The theory and practice of basic techniques of venipuncture and administration of diagnostic contrast agents and/or intravenous medications is included. The appropriate delivery of patient care during these procedures is emphasized. Though regulations regarding the administration of contrast media and intravenous medications vary in different states and institutions, the official position of the American Society of Radiologic Technologists is that venipuncture falls within the profession's general scope of practice and practice standards. Therefore, it should be included in the didactic and clinical curriculum with demonstrated competencies of all appropriate disciplines regardless of the state or institution where the curriculum is taught.

PR: BSC 227 & 227L, MI 202, MI 203, MI 204, proof of BCLS certification.

### SONO 210-Clinical Practice I Sonography (4 Hr.) Fall

Clinical practice experiences are designed for sequential development, application, critical analysis, integration, synthesis and evaluation of concepts and theories in the performance of sonographic procedures.

**MI 211 – Seminar in Imaging Science (1Hr) Fall**

Students will research and make short presentations on new developments in imaging science. Emphasis is placed on developing the student's oral communication skills, research skills, and introducing the student to the concept of continuing education as mandated by the ASRT.

**MI 212-Seminar in Imaging Science (1 Hr.) Spring**

**MI 213-Elective Clinical Practicum 1 (4 Hr.) Summer Intercession**

Elective clinical practicum in radiography or sonography

**SONO 220 Clinical Practice II Sonography (4 Hr.) Spring**

Clinical practice experiences are designed for sequential development, application, critical analysis, integration, synthesis and evaluation of concepts and theories in the performance of sonographic procedures.

**MI 304 – Radiographic Pathology (3 Hr.) Spring**

Content is designed to introduce concepts related to disease and etiological considerations with emphasis on radiographic appearance of disease and impact on exposure factor selection.

**MI 306 – Seminar in Imaging Science (1 Hr.) Fall**

Students will research and make short presentations on advanced practice methodologies in imaging science. Emphasis is placed on developing the student's oral communication skills, research skills, and introducing the student to the concept of continuing education as mandated by the ASRT.

**MI 308 – Radiographic Image Analysis (2 Hr.) Spring**

Content is designed to provide a basis for analyzing radiographic images. Included are the importance of minimum imaging standards, discussion of a problem-solving technique for image evaluation and the factors that can affect image quality. Actual images will be included for analysis.

PR: MI 204, MI 205, MI 208, MI 303, MI 304

**SONO 310-Clinical Practice III Sonography (4 Hr.) Fall**

Clinical practice experiences are designed for sequential development, application, critical analysis, integration, synthesis and evaluation of concepts and theories in the performance of sonographic procedures

**MI 311-Seminar in Imaging Science (1 Hr.) Spring**

Seminar on new and emerging techniques in imaging sciences

**SONO 312- Abdominal Sonography I (4 Hr.) Fall**

This course covers basic abdominal sonographic positioning and scanning protocols as it relates to normal anatomy of the abdomen. Laboratory included.

**SONO 313-Ultrasound Physics I (3 Hr.) Fall**

The focus of this course is to educate students about the physics of sound waves and their interaction with tissue enabling the display of diagnostic imaging.

**SONO 315-Small Parts Sonography (3 Hr.) Fall**

This course covers anatomy, positioning and scanning protocol of the superficial structures.

**SONO 316-Abdominal Sonography II (3 Hr.) Spring**

This course covers basic abdominal sonographic positioning and scanning protocols as it relates to normal anatomy, anatomical variants, physiology to include the retroperitoneum, associated abdominal vasculature identified. Prerequisite SONO 312

**SONO 317-Ultrasound Physics II (3 Hr.) Spring**

The focus of this course is to educate students about the physics of sound waves and their interaction with tissue enabling the display of diagnostic imaging. Prerequisite SONO 313

**SONO 318-Vascular Sonography I (4 Hr.) Spring**

Discussion of vascular disease, duplex examinations with comparison to arteriography as it pertains to venous and visceral vascular examinations. Laboratory included.

**MI 320-Elective Clinical Practicum II (4 Hr.) Summer Intercession**

Elective clinical practicum in radiography or sonography.

**MI 403 – Advanced Practice in Medical Imaging (3 Hr.) Fall Meets Writing Across the Curriculum**  
general education requirement for Marshall University

This course is a core requirement for all students regardless of the Advanced Practice track. The focus of the course will include advanced discussion of communication, human diversity including the political context of health care, health care policy formation, health care law and compliance, patient information management and teamwork.

PR: ARRT, ARDMS

**MI 407 – Cardiovascular Anatomy and Physiology (3 Hr.) Spring**

This course will focus on cardiovascular anatomy and physiology including heart anatomy and coronary, systemic, pulmonary, peripheral and cerebral circulation. Content will include discussion of advanced pathophysiology relating to the vascular system including cardiac physiology.

PR: ARRT: ARDMS

**SONO 410 Clinical Practice V Sonography (4 Hr.) Fall**

Clinical practice experiences are designed for sequential development, application, critical analysis, integration, synthesis and evaluation of concepts and theories in the performance of sonographic procedures

**MI 410– Research in Medical Imaging (3 Hr.) Capstone Course Spring**

This course is a core requirement for all students regardless of the Advanced Practice Track. Research methods and information literacy are important because the health care profession is continually changing, which requires the radiologic technologist to possess new knowledge to function competently. The radiologic technologist should contribute to the body of knowledge and be able to effectively analyze resources to promote growth in the profession. The attitude of lifelong learning enables the radiologic technologist to stay in step with the current health care environment and be prepared to help foster the future and increase awareness of the profession in the global community. This content is geared to increase and disseminate intellectual inquiry, information literacy and the use of scholarly research methods.

PR: ARRT, ARDMS This course will satisfy the Writing Across the Curriculum Requirement.

MI 411-Transcultural Healthcare (3 Hr.) Spring meets Multicultural and Writing Across the Curriculum general education requirements for Marshall University

This course is intended to introduce a culturally comparative analysis of health and healing. Readings provide both comparative ethnographic details and a theoretical framework for organizing and interpreting information about health. Class will meet weekly to discuss assigned readings. It is important that healthcare workers understand the concept of culture as a fluid, permeable, changeable set of collective beliefs, values, and behaviors that inform, shape and constrain the worldviews and personal choices of individuals in healthcare decision making. The course emphasizes a multidisciplinary approach to healthcare that will promote cultural sensitivity toward patients, physicians and healthcare professionals.

SONO 416-Obstetrical Sonography I (3 Hr.) Spring

This course covers basic obstetrical sonographic positioning and scanning protocols as it relates to the normal anatomy of the fetus.

SONO 417-Gynecological Sonography I (3 Hr.) Fall

This course presents a study of anatomy and physiology of the nongravid pelvis and first trimester fetus.

SONO 418-Registry Review Sonography (1 Hr.) Fall

This course introduces the student to ARDMS exam taking skills, mock examinations of the ARDMS matrix, and self-evaluation studies. Study methods and application are also covered. A study of realistic clinical problems and situations, with emphasis on analyzing and evaluating these problems to formulate acceptable imaging modalities is included. Upon successful completion of the course, including a mock ARDMS exit exam, the student will be awarded the Certificate from St. Mary's Medical Center School of Medical Imaging that will allow the student to sit for the appropriate ARDMS exam.

SONO 420-Clinical Practice VI Sonography (4 Hr.) Spring

Clinical practice experiences are designed for sequential development, application, critical analysis, integration, synthesis and evaluation of concepts and theories in the performance of sonographic procedures

SONO 421-Gynecological Sonography II (2 Hr.) Spring

This course presents a study of the pathology of the nongravid pelvis and first trimester.

Prerequisite SONO 417

SONO 422-Obstetrical Sonography II (3 Hr.) Spring

This course focuses on sonographic techniques in high-risk pregnancies and fetal abnormalities and pathologies. Prerequisite SONO 416

SONO 423-Adult Echocardiography I (4 Hr.) Fall

This course covers basic adult heart sonographic positioning and scanning protocols, as it relates to normal anatomy, anatomical variants and physiology of the adult heart.

SONO 424-Vascular Sonography II (3 Hr.) Fall

Discussion of vascular pathology and the use of plethysmography techniques in sonography Prerequisite

**SONO 425- -Adult Echocardiography II (34Hr) Spring**

This course is a continuation of SONO 423 and covers basic adult heart sonographic positioning and scanning protocols as it relates to anatomical variants and physiology of the adult heart. Prerequisite SONO 423

**SONO 436-Seminar Sonography Registry Review II (1hr) Spring**

This course is designed to prepare the sonography student for their second specialty exam through the ARDMS

**SONO 438 Fetal Echocardiography (3 Hr.) Spring Elective**

This course focuses on sonographic techniques in high-risk pregnancies and fetal heart abnormalities. Prerequisite SONO 416

## **DISCLAIMER**

The provisions of this catalog do not constitute a contract, expressed or implied, between any applicant or student and the Center for Education at St. Mary's Medical Center. The Center for Education reserves the right to change any of the provisions, schedules, programs, courses, rules, regulations, or fees whenever school authorities deem it expedient to do so.

## **FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT (FERPA) OF 1974**

This act was designed to protect the privacy of education records, to establish the rights of students to inspect and review their education records, and to provide guidelines for the correction of inaccurate or misleading data. The Center for Education at St. Mary's Medical Center is in compliance with the provisions of this act. Requests for further clarification on this Act, the regulations, Mountwest Community and Technical College, and Marshall University policy should be directed to the Dean of Student Affairs.

## **CIVIL RIGHTS ASSURANCE**

No person in the United States of America based on sex, age, race, religion, color, national origin, sexual orientation, or any otherwise qualified handicapped individual solely by reason of the handicap shall be excluded from participation in, be denied benefits, or be subjected to discrimination under any program or activity receiving federal assistance operated by or in conjunction with the Center for Education at St. Mary's Medical Center.

## **CONFLICT OF CONSCIENCE**

It is the policy of the school that the reasonable and conscientious moral and religious convictions of students will be respected in every way possible. Students are to make these convictions known at the time of admittance to any of the schools. Faculty will make every effort to resolve such issues to the mutual advantage of both the school and the student. Should a student be requested or required to perform duties, which are objectionable because of religious or moral convictions, the student should ask to be relieved of such duty. If the request cannot be accommodated reasonably, without undue hardship or inability to meet the standards of the school, the involved parties are to bring the matter to the attention of the Vice President of Schools of Nursing and Health Professions.

## **CRIMINAL BACKGROUND CHECK AND DRUG SCREEN**

All students who are chosen for admittance to any of the schools of the Center for Education of St. Mary's Medical Center must complete both a background check and a drug screen. Final acceptance is contingent upon a successful background check and drug screen. Once provisional acceptance is granted, the applicant will be advised of the processes to follow in obtaining the background check and the drug screen. The costs for both are paid by the applicant. Criminal results of the background check and/or drug screen will not constitute an automatic bar to admission; positive background checks will be evaluated on an individual basis. Clinical agencies may forbid students with positive criminal

background checks and/or drug screens from providing care in their agency. This policy is subject to change without prior notice.

In addition to the criminal background check and drug screen, each applicant will be asked to complete a disclosure statement at the time they submit their completed application form. Failure to acknowledge past criminal background issues will constitute automatic rejection of that applicant to any of the schools. It is recommended that those with an existing criminal background history submit court documents such as the criminal complaint or judgment of conviction and the results of such issue reflecting legal status and restitution. A crime is defined as all criminal offenses, misdemeanors and not limited to felonies. DUI (driving under the influence) is considered a crime.

### **TIME COMMITMENT**

The curriculum of each school is challenging, labor intensive, and requires commitment and more time than most other courses of study. There are multiple courses each semester, including clinical courses which require a significant amount of direct clinical experience per credit hour. This does not include time required for travel, preclinical visits to the clinical agency, or preparation/study prior to and after the clinical experiences. Clinical hours may be scheduled days, evenings, nights and weekends. Course requirements may include testing during non-scheduled class hours.

### **COMPUTERS AND ELECTRONIC COMMUNICATION**

It is required that the students have a computer with a printer and access to the Internet. While all students have access to these things while at the Center for Education, students must also have access to these things at home or in some other capacity if distance education becomes emergently necessary. Some information will be shared via the electronic method. All students have a Marshall or Mountwest email account and are expected to utilize that account.

### **CAMPUS SAFETY AND SECURITY**

St. Mary's Medical Center provides security for the Center for Education campus. Information regarding safety/security incidents is provided annually to the Vice President of Schools of Nursing and Health Professions and may be reviewed upon request.

Marshall University provides security for that campus. Information regarding safety/security incidents can be reviewed on the university web page at [www.marshall.edu](http://www.marshall.edu).



# **CENTER FOR EDUCATION MISSION, VISION AND EDUCATIONAL PHILOSOPHY**

## **MISSION STATEMENT**

We prepare students to assume roles as caring health care providers, respecting the worth and dignity of human life.

## **VISION STATEMENT**

Leading the way in health care education.

## **STATEMENT OF EDUCATIONAL PHILOSOPHY**

### **EDUCATION**

Education is an interactive process which includes formal instruction and experiential learning. Education enhances learning in the cognitive, affective, and psychomotor domains. Learning involves the translation of new knowledge, insights, skills, and values into one's conduct. This active process takes place within the learner and is fostered when consideration is given to individual differences. Learning is facilitated, through repetition and practical application, when new knowledge is related to previous knowledge and when learning is goal directed.

The need and ability to learn continues throughout life. The role of the faculty in education is to facilitate the student's learning experience through systematic guidance in their endeavors to acquire the knowledge, skills, attitudes, and judgment necessary for competence in health care practice.

## **ACCREDITATION AND MEMBERSHIP**

### **St. Mary's Medical Center**

St. Mary's Medical Center is accredited by The Joint Commission. The address for The Joint Commission is One Renaissance Blvd., Oakbrook Terrace, IL 60181 and the phone number is (630) 792-5000. The web address is <https://www.jointcommission.org>

### **School of Nursing**

The Associate Degree nursing program at St. Mary's/Marshall University Associate of Science in Nursing Program located in Huntington, West Virginia is accredited by the: Accreditation Commission for Education in Nursing (ACEN)  
3390 Peachtree Road NE, Suite 1400 Atlanta, GA 30326  
(404) 975-5000

The most recent accreditation decision made by the ACEN Board of Commissioners for the St. Mary's/Marshall University Cooperative Associate of Science in Nursing program is Continuing Accreditation.

–View the public information disclosed by the ACEN regarding this program at <http://www.acenursing.us/accreditedprograms/programSearch.htm>

### **School of Medical Imaging**

The School of Medical Imaging is accredited by the Joint Review Committee on Education in Radiography (JRCERT) and recognized by the West Virginia Board of Examiners of Radiologic Technologists. JRCERT can be contacted at 20 N. Wacker Drive, Suite 2850, Chicago, IL 60606-3182, 312-704-5300, <http://www.jrcert.org>.

### **School of Respiratory Care**

The School of Respiratory Care program is accredited by the Committee on Accreditation for Respiratory Care (CoARC), 1248 Harwood Road, Bedford, TX 76021, 1-817-283-2835, <http://www.coarc.com/>.

### **School of Sonography**

The School of Sonography is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), 9355 113<sup>th</sup> St. N. #7709, Seminole, FL 33775, 727-210-2350 ([www.caahep.org](http://www.caahep.org)) upon the recommendation of the Joint Review on Education in Diagnostic Medical Sonography (JRC-DMS). The program has a full five-year accreditation and is up for renewal in the Fall of 2026.

Formulated: 2/2021

Revised: 2/2021; 7/2022; 6/2023; 7/25;

Reviewed: 6/24

# **SCHOOL OF NURSING**

## ADMISSION POLICY – NURSING

**POLICY:** All applicants must meet specified requirements to be considered for admission as a student to St. Mary's School of Nursing. All applicants must be either a high school graduate, a high school student scheduled to graduate prior to admission or have a high school equivalent through GED testing. All applicants are strongly encouraged to take the ACT exam and submit results to the Admissions Office.

Admission is competitive. See application scoring sheet for points. Applicants are selected according to the points received.

The official deadline for submitting applications is January 15 for fall admission and July 1 for spring admission. However, late applications may be considered on a case-by-case basis.

**Applicants who received grades that prohibited progression in two or more nursing courses (in either a registered nurse or licensed practical nurse program at any institution) will not be considered for admission for two years after the last unsuccessful nursing course was taken.**

**ADMISSION PROCEDURE:** Apply to Marshall University and St. Mary's School of Nursing as described below.

**Applicants must be admitted to Marshall University if applying to St. Mary's School of Nursing.**

The following must be submitted to Marshall University (if not already a student at Marshall University) at the following address:

Office of Admissions  
Marshall University  
One John Marshall Drive  
Huntington, WV 25755

1. Completed MU application
2. Appropriate MU application fee
3. Official high school transcript
4. Official transcripts from ALL colleges and universities attended
5. ACT score if taken (Marshall University code is 4526)

The following must be submitted / completed by the deadlines to the Center for Education at the following address:

Admissions Office  
St. Mary's Medical Center – Center for Education  
2900 First Avenue  
Huntington, WV 25702

1. Completed St. Mary's School of Nursing application found on the web page at <http://www.st-marys.org>. Go to "Careers and Education" tab. Click on "School of Nursing". The application form is found on that page.
  - a. If application is mailed, application fee of \$30, which is non-refundable, must be included (check or money order, no cash please).
  - b. If application is hand delivered, application fee of \$30, which is non-refundable, may be paid by cash or check in the St. Mary's Center for Education Admissions Office or by cash, check, or credit card St. Mary's Medical Center on the 3<sup>rd</sup> Floor Business Office.
2. Official high school transcript or GED.
3. Official transcript from ALL colleges or universities attended, including Marshall University. ACT scores, if taken, (St. Mary's code is 4551). If the ACT has not been taken, contact Marshall University for dates of administration.
4. Signed Code of Conduct Statement and the Drug & Alcohol Testing statement contained in the application.

**A. HIGH SCHOOL SENIORS AND APPLICANTS WHO HAVE COMPLETED LESS THAN 12 COLLEGE CREDIT HOURS MUST HAVE THE FOLLOWING:**

1. A minimum high school GPA of 3.00.
2. An overall 2.00 GPA or better on any college courses completed.
3. An overall 2.00 GPA on all courses completed at Marshall University.
4. ACT score, if taken, sent to the Center for Education at the address above.

NOTE: It is recommended that high school students take a college prep track and take advanced courses whenever possible.

**B. GED APPLICANTS MUST HAVE THE FOLLOWING:**

1. Met criteria for GED admission as stated in the Marshall University catalog.
2. Completed 12 college semester credit hours, which must be 100 level or above courses and be taken for a grade. The grades must be "C" or above.
3. An overall 2.00 GPA or better on any college courses completed.
4. An overall 2.00 GPA on all courses completed at Marshall University.
5. ACT score, if taken, sent to the Center for Education at the address above.
6. Requested that GED Certification be sent to both St. Mary's School of Nursing and Marshall University.

C. APPLICANTS WITH AT LEAST 12 HOURS OF COLLEGE CREDIT MUST HAVE THE FOLLOWING:

1. A high school diploma or GED.
2. An overall 2.00 GPA or better on any college courses completed.
3. An overall 2.00 GPA on all courses completed at Marshall University.
4. ACT score, if taken, sent to the Center for Education at the address above.

D. APPLICANTS REQUESTING TRANSFER FROM ANOTHER RN PROGRAM MUST HAVE THE FOLLOWING:

1. An overall 2.00 GPA or better on all courses completed.
2. An overall 2.00 GPA on all courses completed at Marshall University.
3. ACT score, if taken, sent to the Center for Education at the address above. Submitted copy of all course syllabi for the completed nursing courses at the previous nursing school
4. **A transfer student will not receive credit for any course in which they did not receive a passing grade at the school of origin.**
5. Submitted transcript that includes all nursing courses taken
6. Paid a \$75 transfer consideration fee.
7. A letter of good standing from the nursing school of origin.

NOTE: Transfer applicants will be evaluated on an individual basis.

E. APPLICANTS WHO ARE LPNS AND ARE SEEKING ADMISSION MUST HAVE THE FOLLOWING:

1. An overall 2.00 GPA or better on all courses completed.
2. An overall 2.00 GPA on all courses completed at Marshall University.
3. ACT score, if taken, sent to the Center for Education at the address above.
4. Sent an official transcript from the LPN program to St. Mary's School of Nursing
5. An unencumbered LPN license.

An LPN may be eligible to receive credit for NUR 120 (Introduction to Nursing)

**If any applicant earns a D, F, or W in a required pre-entry course (BSC 227 & 227L, CHM 205, ENG 101, and/or PSY 201), the applicant may still be accepted into the program provisionally given the applicant completes all of these courses with a C or better prior to the first day of the first nursing course.**

**If any applicant earns a D, F, or W in any other required support course(s), the applicant may be eligible for admission but must retake and earn a C or greater in the required support course(s) per the normal course progression regarding co-requisite or pre-requisite placement.**

F. ADDITIONAL INFORMATION FOR ADMISSION TO ST. MARY'S SCHOOL OF NURSING:

A "C" grade or better is required for each of the required support courses transferring for credit toward the requirements for the nursing program. CLEP credit is also accepted for some courses. St. Mary's School of Nursing and Marshall University reserve the right to accept or reject individual non-major courses that are other than those listed in the nursing curriculum. It is the applicant's

responsibility to assure all transcripts, fees, etc. are present at both St. Mary's Center for Education and Marshall University. Applicants missing information will not be considered. Applicants will be notified concerning their acceptance.

- G. ALL APPLICANTS TO THE SCHOOL OF NURSING MUST BE ABLE TO MEET THE PHYSICAL, EMOTIONAL, AND FUNCTIONAL DEMANDS OF A NURSING POSITION. Applicants need to be aware that nursing and nursing education can be rigorous and physically, mentally, and emotionally demanding. The public expects that professional nurses have been prepared to provide safe and effective care. The Americans with Disability Act (ADA) provides the legal framework to guide these responsibilities.

H. ADMISSION /READMISSION /TRANSFER AGREEMENT

If accepted into SMSON, the following students will be required to participate in an admission/ readmission/ transfer agreement.

1. A student entering the program who was unsuccessful in or withdrew from a nursing course at any time at SMSON or another school of nursing.
2. A student who is readmitted to the program due to being unsuccessful in a nursing course at SMSON.
3. A student who is readmitted to the program after withdrawing from a nursing course at SMSON (even if passing the course(s) at the time of withdrawal).
4. A student reentering the program from a leave of absence from SMSON (even if passing the course(s) at the time of LOA).
5. A student entering the program as a nursing transfer student.

## **DISABILITY STATEMENT**

- St. Mary's Center for Education, along with Marshall University, is committed to equal opportunity in education for all students. To receive academic accommodations, students should provide documentation to any of the following programs: the Office of Accessibility and Accommodations, College Program for Students with Autism Spectrum Disorders, Higher Education for Learning Problems (HELP) Center and/or Buck Harless Student-Athlete Program Office. Following this, Disability Services will notify the Vice President of Schools of Nursing and Health Professions (VPSONHP) at St. Mary's Center for Education or Coordinator of Academic Support outlining the recommended academic accommodation(s) the student will need. The Coordinator of Academic Support and faculty at SMMC Center for Education will meet with the student to discuss how the accommodation(s) requested will be provided. For more information, please visit <https://www.marshall.edu/accessibility> or contact Marshall University Office of Disability Services.

Revised: 11/2019; 6/24; 7/25;  
Reviewed: 5/2020; 7/21; 6/22, 6/23



## **END OF PROGRAM STUDENT LEARNING OUTCOMES**

Upon completion of the program, the graduate will:

### **Professional Behaviors**

Exemplify moral, ethical, and legal standards in the role of the professional nurse.

### **Patient Centered Care**

Provide compassionate, coordinated care based on the patient's preferences, values and needs.  
Advocate for patients, recognizing the patient or designee as the source of control.

### **Teamwork and Collaboration**

Participate cooperatively within nursing and inter-professional teams, fostering open communication, mutual respect, and shared decision-making to achieve quality patient care.

### **Evidence-based Practice**

Integrate best current evidence with clinical practice to meet individualized patient needs and organizational goals for delivery of optimal health care.

### **Quality Improvement**

Formulate a plan based on analysis of data to improve the quality and safety of health care. Improve the quality and safety of health care based on analysis of patient and process data.

### **Safety**

Reduce the risk of harm within the environment of care through organizational processes and individual performance.

### **Informatics**

Integrate patient care technologies, information systems, and communication devices to support safe nursing practice.

11/99

5/10/00

Reviewed 5/05, 3/10, 5/20, 7/21; 6/24; 7/25;

Revised: 7/10, 8/12, 7/15, 7/17; 8/18; 6/19; 12/19; 6/22, 6/23

## ST. MARY'S SCHOOL OF NURSING MISSION AND PHILOSOPHY

### MISSION STATEMENT

In addition to supporting the missions of both Marshall University and St. Mary's Medical Center, the mission of the School of Nursing is to prepare safe and competent professional nurses who provide high quality patient centered care, respecting the worth and dignity of human life.

### PHILOSOPHY & GUIDING CONCEPTS

The philosophy and organizing concepts of St. Mary's/Marshall University Cooperative ASN Program are consistent with the philosophy and mission of both Marshall University and St. Mary's Medical Center. This philosophy expresses the faculty's commitment to quality and excellence in nursing education. The philosophy is grounded in the St. Mary's Medical Center values which are

- Compassion-showing loving concern and understanding for the needs of the whole person.
- Hospitality-a warm, helpful and welcoming attitude toward all persons.
- Reverence-respect for the God-given dignity of each person.
- Interdependence-cooperation and collaboration among all members of our health care community.
- Stewardship- responsible use of and accountability for our human, material and financial resources.
- Trust-integrity, truthfulness, and straight-forwardness in relationships.

These values are consistent with the NLN values of caring, diversity and inclusion, integrity, and excellence.

Professional nursing is both a caring art and a science. It is a blend of scientific knowledge, nursing theory and clinical practice. The nurse assumes the roles of provider and manager of care in a variety of health care settings. The ultimate role of nursing is to assist patients to achieve an optimal level of health.

The program is based on faculty beliefs regarding the role of the professional nurse in providing patient-centered care, evidence-based practice, quality improvement, safety, informatics, teamwork and collaboration:

The nurse demonstrates **Professional Behaviors** through the implementation of integrity, responsibility, moral, ethical, and legal practices in providing advocacy and safe quality care for patients and families (NLN, 2021).

The nursing process provides the framework for provision of patient care (ANA, 2021). **Patient-centered care** is the recognition that the patient or designee is the source of control and full partner in providing compassionate and coordinated care based on respect for patient preference, values and needs. (QSEN, 2021) Patient values guide all clinical decisions (National Academy of Medicine, 2021). Holistic patient centeredness reflects the uniqueness of an individual patient's background, diversity, values, traditions and family. A patient centered approach supports

optimal outcomes by involving patients and those close to them in decisions about clinical care. (NLN, 2021) Patient centered care supports the respectful, efficient, safe and well-coordinated transition of the patient through all levels of care (NLN, 2021).

In order to deliver patient-centered care, nursing practice must integrate **Evidence-Based Practice**. Evidence based practice is the integration of best clinical practice, research evidence, nursing expertise, and the values and preferences of individuals, families and communities served (National Academy of Medicine, 2021).

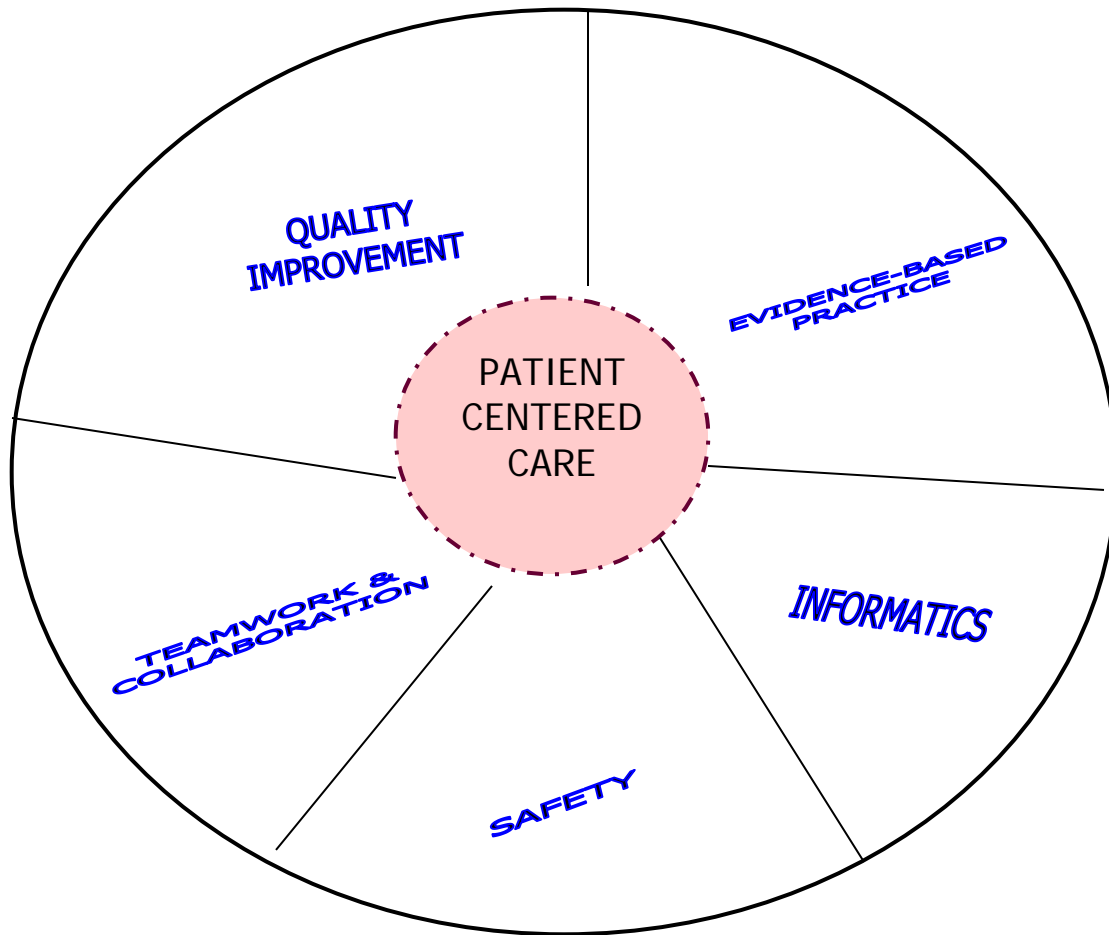
Professional nurses have an ethical obligation to improve health care through the application of **Quality Improvement** activities. Quality improvement is the use of data to monitor the outcomes of care processes and uses improvement methods to design and test changes to continuously improve the quality and safety of health care systems (QSEN, 2021).

**Safety** is the avoidance of injury or harm and is essential for the provision of all health care. Safety is necessary for nursing practice within ethical, legal and regulatory frameworks. Application of safety principles minimizes risk of harm to individuals, populations and providers through system effectiveness and individual performance (QSEN, 2021)

The use of **Informatics** is integral to the provision of safe patient care. Informatics is the use of information and technology to communicate, manage knowledge, mitigate errors, and support decision making (QSEN, 2021).

A culture of integrity and ethical behavior is essential for the development of **Teamwork and Collaboration** in order to achieve quality patient care. To ensure that care is continuous and reliable, nurses must function effectively within nursing and inter-professional teams, foster open communication, mutual respect, and shared decision-making (QSEN, 2021).

## NURSING PROCESS AND PROFESSIONAL BEHAVIORS



KNOWLEDGE  
NURSING THEORY  
CLINICAL PRACTICE

### SMMC VALUES

COMPASSION  
HOSPITALITY  
REVERENCE  
INTERDEPENDENCE  
STEWARDSHIP  
TRUST

### NLN CORE VALUES

CARING  
INTEGRITY  
DIVERSITY AND INCLUSION  
EXCELLENCE

## DESCRIPTION OF CONCEPTUAL MODEL

The conceptual model serves as a guiding framework for curriculum development, provision of education and evaluation of achievement of student learning outcomes.

The base depicts the values which are the foundation of the school. SMMC values are Compassion, Hospitality, Reverence, Interdependence, Stewardship, and Trust. NLN core values include Caring, Diversity and Inclusion, Integrity, Excellence.

The trunk/pedicle/stalk demonstrates that nursing knowledge, theory and clinical practice provide the direction for development of the curriculum. These essential elements for nursing education flow from the basic or core values.

The inner circle depicts patient centered care as the central element of nursing practice and education. The circle remains intermittent to signify the interdependent relationship with the outer constructs in an ongoing dynamic interaction.

The outer circle displays the core competencies of Evidence-based Practice, Informatics, Quality Improvement, Teamwork & Collaboration, and Safety as constructs that influence nursing practice and the care provided to each individual patient.

Depicted as the surrounding for the outer circle are the components of the nursing process and professional behaviors. These components encompass the whole of nursing practice and serve as the basis for interaction with each patient.

Approved 4/18/94

Revised 6/02/94, 5/96, 7/15; 8/17; 8/18

Reviewed 4/16/01, 5/05, 7/07, 3/10, 7/10, 8/12; 6/19; 5/20; 7/21; 6/22, 6/23; 6/24; 7/25;

## PROGRAM REQUIREMENTS

Graduation from the program requires successful completion, with a grade of “C” or higher, of sixty-six (66) credit hours. Forty two (42) credit hours are nursing courses and twenty-four (24) credit hours are support courses. A GPA of 2.00 or higher is required for graduation.

Prior to First Nursing Course	
BSC 227 & 227L (Anatomy)	4 Credits
CHM 205 (Chemistry)	3 Credits
ENG 101 (Composition I)	3 Credits
PSY 201 (Introduction to Psychology)	3 Credits
13 Credits	

First Semester	
BSC 228 & 228L (Physiology)	4 Credits
DTS 210 (Nutrition)	3 Credits
NUR 120 (Introduction to Nursing)	8 Credits
Total 15 Credits	

Second Semester	
BSC 250 & 250L (Microbiology)	4 Credits
NUR 220 (Health Alterations I)	8 Credits
NUR 225 (Psychiatric Nursing)	4 Credits
Total 16 Credits	

Third Semester	
NUR 230 (Health Alterations II)	7 Credits
NUR 235 (Maternal / Child Nursing)	6 Credits
Total 13 Credits	

Fourth Semester	
NUR 241 (Health Alterations III)	9 Credits
Total 9 Credits	

Required Credits for Graduation	
Nursing Courses	42 Credits
Support Courses	24 Credits
Total 66 Credits	

### Credit Hour

One lecture credit hour is given for each 15 classroom contact hours, plus necessary outside preparation. For nursing courses, one laboratory credit hour requires at least 45 hours of laboratory work per credit hour, plus necessary outside preparation. Laboratory experiences are complements to classroom courses that focus on the theory and principles of the discipline.

Formulated: Prior to 5/2002

Reviewed: 8/12, 8/16; 6/19; 5/20; 6/22, 6/23, 6/24

Revised: 6/02, 5/03, 5/04, 5/05, 5/06, 4/08, 3/10, 7/10, 12/12, 6/15, 7/17, 8/18; 7/20, 7/21; 7/25;

## COURSE DESCRIPTIONS

PR – Pre-requisite

CR – Co-requisite

### SCHOOL OF NURSING

NURSING 120, INTRODUCTION TO NURSING, 8 Credits (6 theory; 2 clinical)

Introduce the nursing role and use of the nursing process in assisting adult patients to meet basic needs. Clinical included.

(PR – BSC 227 & 227L, CHM 205, ENG 101, PSY 201; CR –BSC 228 & 228L, DTS 210)

NURSING 220, HEALTH ALTERATIONS I, 8 Credits (6 theory; 2 clinical)

Focus is on nursing care of adult patients responding to potential and actual health alterations. Clinical included.

(PR – NUR 120 and ASSOCIATED CRs; CR – BSC 250 & 250L)

NURSING 225, PSYCHIATRIC NURSING, 4 Credits (3 theory; 1 clinical)

Focus is on the nursing role in caring for patients with alterations of psychosocial functioning. Clinical included.

(PR – NUR 120 and ASSOCIATED CRs)

NURSING 230, HEALTH ALTERATIONS II, 7 Credits (5 theory; 2 clinical)

Focus is on nursing care of adult patients with health alterations of specific physiological systems. Role requirements and processes utilized in managing groups of patients is introduced. Clinical included.

(PR – NUR 220 and NUR 225 and ASSOCIATED CRs)

NURSING 235, MATERNAL-CHILD NURSING, 6 Credits (4 theory; 2 clinical)

Focus is on the nursing role utilized in promoting health and caring for the child bearing family and pediatric patients. Clinical included.

(PR – NUR 220 and NUR 225 and ASSOCIATED CRs)

NURSING 241, HEALTH ALTERATIONS III, 9 Credits (4 theory; 5 clinical)

Focus is on nursing care of adult patients with health alterations of specific physiological systems. Clinical included.

(PR – NUR 230 and NUR 235 and ASSOCIATED CRs)

Revised: 9/05, 6/06, 7/07, 12/12, 6/15, 8/16, 8/18; 6/22; 7/25;

Reviewed: 5/05, 3/10, 7/10, 8/12; 8/17; 6/19; 5/20, 7/21, 6/23, 6/24

## RATIONALE FOR COURSE PLACEMENT

PSY 201	Basic psychology helps explain the human behavior in response to illness.
BSC 227 &227L	Principles of normal human anatomy are required to understand basic human needs.
CHM 205	General, Organic and Biochemistry is necessary for a basic understanding of the physiological functioning of the human body that is taught in all nursing courses.
ENG 101	Written communication skills are important throughout a professional discipline.
DTS 210	Nutrition provides a basis for the understanding of the body's utilization of nutrients and how this may be affected by health alterations that are taught in all nursing courses.
BSC 228 &228L	Principles of normal human physiology are required to understand basic human needs and pathophysiology.
NUR 120	Introduction to Nursing provides the fundamental concepts involved in the basic role of the nurse.
BSC 250 &250L	Microbiology provides basic concepts that relate to infection control and aseptic technique that is used throughout nursing practice.
NUR 220	Health Alterations I provides concepts of alterations in physiological functioning and other knowledge basic to the nursing role.
NUR 225	This course builds on concepts introduced in PSY 201, and provides principles of alterations in psychosocial functioning.
NUR 230	This course continues with the concepts of alterations in physiological functioning in increasing complexity. Further requirements of the nursing role are presented.
NUR 235	This course utilizes knowledge presented in all previous courses to understand the physiological and psychosocial processes for the maternal-child patient.
NUR 241	This course utilizes all previous knowledge for understanding complex alterations in physiological functioning. Provisions are made for practical application of nursing roles in the transition phase of student to graduate.

Revised: 6/2004, 10/2005, 6/2006, 8/2012, 6/15, 7/16, 8/18; 6/22, 6/23; 7/25;

Reviewed: 7/10; 8/17; 6/19; 5/20, 7/21, 6/24



## MARSHALL UNIVERSITY COURSE DESCRIPTION SUPPORT COURSES

### BIOLOGICAL SCIENCE 227 – Human Anatomy - 3 credit hours

Study of gross and microscopic anatomy of human body systems and their development. Provides preparation for degrees in health professions.

### BIOLOGICAL SCIENCE 227L– Human Anatomy Lab – 1 credit hour

Laboratory companion course to BSC 227. Practical and computer aided exercises related to gross and microscopic anatomy of human body systems and their development.

### BIOLOGICAL SCIENCE 228 – Human Physiology – 3 credit hours

Study of normal human physiology, from cells to systems. Provides the scientific background for understanding pathophysiology and preparation for degrees in health professions.

### BIOLOGICAL SCIENCE 228L – Human Physiology Lab–1 credit hour

Laboratory companion course to BSC 228. Introduction of the scientific method, with focus on interpretation of data and application toward physiological systems. Does not count toward a major in Biological Sciences.

### BIOLOGICAL SCIENCE 250 - Microbiology and Human Disease – 3 credit hours

Introduction to microbiology with emphasis on the role of microorganisms in the disease process.

### BIOLOGICAL SCIENCE 250L– Microbiology and Human Disease Lab– 1 credit hour

Laboratory companion course to BSC 250. Practical exercises with emphasis on microscopy, microorganism identification, and aseptic technique.

### CHEMISTRY 205 – General, Organic and Biochemistry – 3 credit hours

Introductory course for health professions students and non-science majors covering basic chemical principles with applications in organic chemistry and biochemistry.

### ENGLISH 101 – Beginning Composition – 3 credit hours

Introduction to academic writing with emphasis on writing as a multi-stage process, critical thinking, and fundamental research strategies and skills.

### DIETETICS 210 – Nutrition– 3 credit hours

Principles of human nutrition and their application in planning and evaluating dietaries for individuals and families.

### PSYCHOLOGY 201 – General Psychology – 3 credit hours

Principles and methods in the scientific study of behavior.

SCHOOL OF NURSING, ADMINISTRATION, FACULTY, STAFF  
FACULTY

Dr. Joey Trader, Ed.D., MSN, RN  
Vice President for Schools of Nursing and Health Professions  
Director School of Nursing  
St. Mary's/Marshall University Cooperative ASN, Huntington, WV  
Marshall University, Huntington, WV  
Liberty University, Lynchburg, VA

Amy Baise, MSN, RN, CNE  
St. Mary's School of Nursing, Huntington, WV  
Ohio University, Athens, OH  
Walden University, Minneapolis, MN

Angela Bartram, MSN, RN  
St. Mary's School of Nursing, Huntington, WV  
Ohio University, Athens, OH  
Chamberlain College of Nursing, Richmond, VA

Deborah Bridgewater, MSN, RN, CNE  
Academic Support Coordinator  
Marshall University, Huntington, WV  
West Virginia University, Morgantown, WV

Suzanne Bunten, MA., CFE Librarian  
Marshall University, Huntington, WV

Amanda Burton, MSN, RN, CNE  
St. Mary's School of Nursing, Huntington, WV  
Marshall University, Huntington, WV

Brigitte Carroll, MSN, RN  
Ashland Community College, Ashland, KY  
Mountain State University, Beckley, WV  
Northern Kentucky University, Highland Heights, KY

Dr. Kelly Clay, DNP, MSN, RN, CNE  
St. Mary's School of Nursing, Huntington, WV  
Marshall University, Huntington, WV  
Post University, Waterbury, CT

Dr. Misty Cooper, DNP, MSN, RN, CNE  
Shawnee State University, Portsmouth, OH  
Walden University, Minneapolis, MN

Dr. Rejeanne DuVall, DNP, MSN/Ed, RN  
Coordinator, CFE Laboratory and Simulation  
Louisiana College, Pineville, LA  
University of Phoenix, Phoenix, AZ  
American Sentinel University, Denver, CO

Shelia Foster, MSN, RN, CNE  
St. Mary's School of Nursing, Huntington, WV  
West Virginia University, Morgantown, WV  
Bellarmine University, Louisville, KY

Dr. Allison Jonas, DNP, MSN, RN  
St. Mary's School of Nursing, Huntington, WV  
Bellarmine University, Louisville, KY  
Eastern Kentucky University, Richmond, VA

Dr. Jami Layne, DNP-Ed, MSN, RN, CNE  
Excelsior College, Albany, NY  
Chamberlain College of Nursing, Richmond, VA  
Western Governors University, Salt Lake City, UT  
Arkansas State University, Jonesboro, AR

Sara Marriott, MSN, RNC., I.B.C.L.C.  
Marshall University, Huntington, WV  
University of Phoenix, Phoenix, AZ

Aaron Maynard, MSN, BSN, RN  
St. Mary's School of Nursing, Huntington, WV  
Ohio University, Athens, OH  
Rasmussen University, Bloomington, MN

Alyson Meredith, MSN/Ed, BSN, RN  
Marshall University, Huntington, WV

Christopher Muth, BSN, RN  
St. Mary's School of Nursing, Huntington, WV  
Marshall University, Huntington, WV

Mikaela Neal, BSN, RN  
St. Mary's School of Nursing, Huntington, WV  
Marshall University, WV

Lydia Osborne, MSN, RN  
Ashland Community and Technical College, Ashland, KY  
Walden University, Minneapolis, MN

April Parsons, BSN, RN  
St. Mary's School of Nursing, Huntington, WV  
Western Governors University, Salt Lake City, UT  
Marshall University, Huntington, WV

Amy Samples, MSN, RN, CNE  
Marshall University, Huntington, WV

Dr. Rebecca Scites, Ed.D., MSN, APRN, FNP-C, CNE  
St. Mary's School of Nursing, Huntington, WV  
Marshall University, Huntington, WV  
Liberty University, Lynchburg, VA

Heather Streets, MSN, BSN, RN, OCN, MHA  
Fayetteville, Technical Community College, Fayetteville, NC  
Marshall University, Huntington, WV

Tonya Taylor, MSN, APRN, FNP-BC, RN  
Marshall University, Huntington, WV  
Bellarmine University, Louisville, KY

Tasha Toppins, MSN, RN, CNE  
Marshall University, Huntington, WV  
Wheeling Jesuit University, Wheeling, WV

## STAFF

CFE Administrative Assistant	Paula Cremeans	304-526-1426
CFE Admissions Coordinator	Melba Curry	304-526-1423
CFE Admissions Coordinator	Leah Chapman	304-399-7110
Environmental Services Aide	Carlena Mullins	
Environmental Services Aide	Jim Burns	

**WEST VIRGINIA BOARD OF EXAMINERS FOR REGISTERED PROFESSIONAL NURSES  
AND THE NCLEX-RN**

Excerpted from the WVRN Board:

“Individuals who are considering entering the nursing profession and who may have a criminal history often ask about potential barriers to licensure following successful completion of an approved nursing program.”

If this situation is of concern to you, please contact the Program Director or

[Click this link for information from the West Virginia RN Board](#)

**PROGRAM OUTCOMES/DISCLOSURE**

**NCLEX-ULTIMATE PASS RATE**

**By Calendar Year**

<b>Ultimate Pass Rate Table- Aggregated for the Entire Program</b>	
<b>Year</b>	<b>Ultimate Pass Rate (Includes Repeat Testers)</b>
<b>Jan 1 – Dec 31, 2024</b>	100% (125/125)
<b>Jan 1 – Dec 31, 2023</b>	100% (122/122)
<b>Jan 1 – Dec 31, 2022</b>	99.37% (157/158)
<b>Jan 1 – Dec 31, 2021</b>	100% (106/106)
<b>Jan 1 – Dec 31, 2020</b>	99.02% (102/103)

Ultimate Pass Rate includes first and subsequent attempts. Updated 7/2025

**NCLEX-ULTIMATE PASS RATE**

**By Cohort**

<b>Year</b>	<b>EXAMINATION PASS RATE</b>	
	<b>Cohort May</b>	<b>Cohort December</b>
	<b>Ultimate Pass Rate</b>	<b>Ultimate Pass Rate</b>
<b>2024</b>	100% (69/69)	100% (46/46)
<b>2023</b>	100% (56/56)	100% (55/55)
<b>2022</b>	100% (75/75)	100% (65/65)
<b>2021</b>	100% (51/51)	100% (59/59)
<b>2020</b>	97.87% (46/47)	100% (55/55)

Ultimate Pass Rate includes first and subsequent attempts.

**PROGRAM COMPLETION PERCENTAGE By Cohort**

	ENTERED FALL 2023  ON TIME GRADUATION MAY 2025	ENTERED SPRING 2023  ON TIME GRADUATION DEC 2024	ENTERED FALL 2022  ON TIME GRADUATION MAY 2024	ENTERED SPRING 2022  ON TIME GRADUATION DEC 2023	ENTERED FALL 2021  ON TIME GRADUATION MAY 2023	ENTERED SPRING 2021  ON TIME GRADUATION DEC 2022		
Number Entered	70	60	81	75	78	77		
4 semester completion rate	57.14	63.33	71.60	50.67	65.38	76.62		
5 semester completion rate	68.57 Projected	80.00	80.25%	66.67	74.36	85.71		
6 semester completion rate	78.57 Projected	80.00	82.72 Projected	69.33	78.21	89.61		

**PROGRAM COMPLETION PERCENTAGE By Year**

Expected Level of Achievement		Entered 2023	Entered 2022	Entered 2021	Entered 2020	Entered 2019	
40% of all students who begin in Nursing 120 will complete the program on-time in 4 semesters.	NUMBER ENTERED	141	156	155	164	150	
	4 semester completion rate	55.32	61.53	70.97%	59.76%	63%	
	5 semester completion rate	68.09 projected	73.71	80.00%	79.27%	81%	
	6 semester completion rate	73.05 projected	76.28	83.87%	84.15%	85%	

[Analysis of 2024-2025 End of Program Student Learning Outcomes I will update this once I get it written](#)



## PROJECTED EXPENSES

### NURSING CLASSES ONLY

<u>FIRST SEMESTER</u>		<u>THIRD SEMESTER</u>	
Tuition: 8 credits	\$2,720	Tuition: 13 credits	\$4,080
Uniform	\$150	<u>Learning Resources</u>	<u>\$750</u>
Learning Resources	\$2,080	Total:	\$4,830
<u>Background Check/Drug Screen</u>	<u>\$100</u>		
Total:	\$5,050		
<u>SECOND SEMESTER</u>		<u>FOURTH SEMESTER</u>	
Tuition: 12 credits	\$4,080	Tuition: 9 credits	\$3,060
Learning Resources	\$965	Learning Resources	\$285
Total:		<u>Graduation Expenses</u>	<u>\$100 - \$400</u>
	\$5,045	Total:	\$3,445 - \$3755

NOTE: These expenses do **NOT** reflect the cost of the non-nursing courses.

Students will receive an invoice from St. Mary's School of Nursing for books and ATI resources. Students will receive a bill from MU for courses and fees for non-nursing courses and for nursing courses taken at St. Mary's Center for Education. Tuition is capped at 12 hours per semester. However, nursing courses and non-nursing courses are not counted together. For example, if a student is taking 13 hours of nursing courses and six hours of non-nursing courses, the student will be billed for 12 hours of nursing courses and six hours of non-nursing courses. However, if a student is taking only 13 hours of nursing courses, the student will be billed 12 hours of nursing courses only. Another example: if a student is taking eight hours of nursing courses and six hours of non-nursing courses, the student will be billed eight hours of nursing and six hours of non-nursing. Please contact the Admissions office or the Program Director for further clarification.

3

Payments for books and ATI resources are to be paid directly to SMMC-SON by the student.

Despite any policy to the contrary, for any students using U.S. Department of Veterans Affairs (VA) Post 9/11 G.I. Bill® (Ch. 33) or Vocational Rehabilitation and Employment (Ch. 31) benefits, while payment to the institution is pending from the VA, we will not:

- Prevent their enrollment;
- Assess a late penalty fee to;
- Require they secure alternative or additional funding;
- Deny their access to any resources (access to classes, libraries, or other institutional facilities) available to other students who have satisfied their tuition and fee bills to the institution.

However, to qualify for this provision, such students may be required to:

- Produce the VA's Certificate of Eligibility by the first day of class;
- Provide written request to be certified;
- Provide additional information needed to properly certify the enrollment as described in other institutional policies (see our VA School Certifying Official for all requirements).

# **SCHOOL OF RESPIRATORY CARE**

## **MISSION STATEMENT**

We prepare students to become respiratory therapists who believe each individual is of importance and worth.

## **VISION STATEMENT**

To provide all respiratory care students with the best learning environment and to assist them in becoming successful in the field of respiratory care.

## **GOALS**

### Goal 1:

To prepare graduates with demonstrated competence in the cognitive (knowledge) psychomotor (skills), and affective (behavior) learning domains of respiratory care practice as performed by registered respiratory therapists (RRTs).

### Goal 2:

To prepare leaders for the field of respiratory care by including curricular content that includes objectives related to the acquisition of skills in one or more of the following: management, education, research, advanced clinical practice (which may include an area of clinical specialization).

### Goal 3:

To prepare our graduates to take the NBRC examination upon graduation and to achieve the high cut score on the TMC examination and to pass the CSE to become a Registered Respiratory Therapist.

## **STATEMENT OF PHILOSOPHY**

### **PERSON**

Each person is a unique individual, capable of rational thoughts and self-directed behaviors, with physiological, psychosocial, and spiritual needs. Each individual has a varying capacity to respond to environmental changes. A person's response to environmental changes affects the ability to meet basic needs. Basic needs are defined as those physiological, psychosocial, and spiritual requirements that are essential to optimal health throughout the life span.

### **ENVIRONMENT**

Environment is the surroundings, conditions and influences which affect the individual. There are interacting and reciprocal processes within the environment which continually occur and affect individuals. People in the environment are often joined in social networks of families, groups, and communities.

## HEALTH

Health is a dynamic state which is dependent on genetic, physical, emotional, and sociocultural factors. A person's state of health is determined by responses to environmental factors that affect the ability to meet basic needs. Unmet basic needs result in alterations in physiological and psychosocial functioning.

## RESPIRATORY CARE

Respiratory care is both a caring art and a science. It is a blend of scientific knowledge, theory, and clinical practice. The respiratory therapist, as a member of the allied health team, assumes the role of provider in pulmonary care as well as assists the physician, nurse, and other members of the allied health team to manage the patient's care in a variety of health care settings.

The ultimate role of the respiratory therapist is to assist patients to achieve an optimal level of health within the environment of pulmonary care. The respiratory care process in conjunction with all allied health specialties is an integral component in the provision and management of patient care.

## EDUCATION

Education is an interactive process that includes formal instruction and experiential learning. Education enhances learning in the cognitive, affective, and psychomotor domains. Learning involves the translation of new knowledge, insights, skills, and values into one's conduct. This active process takes place within the learner and is fostered when consideration is given to individual differences.

Learning is facilitated through repetition and practical application, when new knowledge is relative to previous knowledge, and when learning is goal-directed. The need and ability to learn continue throughout life. The role of the faculty in respiratory care education is to facilitate the student's learning experiences through systematic guidance in their endeavors to acquire those knowledge, skills, and judgments necessary for competence in the practice of respiratory therapy.

The Bachelor of Science Degree in Respiratory Care is based on knowledge from the humanities and the natural, social, behavioral, and respiratory therapy sciences. The Bachelor of Science Degree and the Associate of Applied Science in Respiratory Care prepares a graduate whose practice is characterized by critical thinking, clinical competence, collaboration, and accountability, and encompasses practice in both acute and long-term care settings where policies and procedures are specific, and guidance is available.

Approved: June 2007

Revised: January 2019, 6/23, 6/24

Reviewed: 7/21; 6/22, 6/23; 7/25;

## **ORGANIZING FRAMEWORK**

The educational program for the Bachelor of Science Degree in Respiratory Care is designed to prepare the student to assume the role of a respiratory therapist. The curriculum plan is based on knowledge from the humanities, and the natural, social, behavioral, and respiratory sciences, and provides a basis for clinical decisions and competence.

The major organizing concepts for the curriculum are a person as a patient, environment, health, and respiratory therapist. The person is the primary focus of care and is studied systematically by assessing the patient as an individual and within the context of the family or group. Health is a dynamic state determined by responses to environmental factors throughout the life span. Respiratory Care is a caring art and a science that assists the patient to achieve an optimal level of health. These organizing concepts can be visualized as Horizontal Threads progressing from the initial respiratory care course to the final course. Horizontal Threads are themes that are repeated in various courses across the program.

The respiratory therapist assumes the roles of provider and manager of pulmonary care. As a provider of care, the respiratory therapist must assist in assessing the patients' basic needs in order to make effective clinical decisions to determine caring interventions and appropriate teaching/learning outcomes. As a manager of pulmonary care, the respiratory therapist must utilize resources in the environment to plan, organize and direct the patients' pulmonary care. Collaboration and communication with the physician, nurse, and other members of the allied health team are an integral part of these roles. These respiratory therapist roles and behaviors form the Vertical Threads of the curriculum. Vertical Threads build in complexity from start to finish in the respiratory care curricula.

The program of respiratory care proceeds from the simple to the more complex and/or specialized with beginning courses providing a foundation for future learning. In the basic curriculum, first semester courses begin with fundamentals of respiratory care and progress to health alterations of the patient's span. The second year courses continue with health alterations in the critically ill patient. The curriculum plan is designed to integrate knowledge and skills for effective practice. Content is provided in each respiratory care course to facilitate the development of the skills for practice in a variety of health care settings. For all students, the final course in the program is designed as a capstone course to integrate knowledge and skills for effective practice.

Approved: June 2007

Reviewed: 7/21, 6/23, 7/25,

**ADMISSION POLICY**  
**School of Respiratory Care**

**POLICY:**

All applicants must meet specified requirements to be considered for admission as a student to St. Mary's/Marshall University Co-Operative School of Respiratory Care. All applicants must be either a high school graduate or have a high school equivalent through GED testing. All applicants are strongly encouraged to take the ACT exam and submit results to the Admissions Office.

Admission is competitive. The deadline for submitting applications is April 15 for fall admission. Please meet the deadline as established.

**Applicants who received grades that prohibited progression in two or more respiratory courses will be considered for readmission after a one-year waiting period.**

**ADMISSION PROCEDURE:**

Apply to Marshall University and St. Mary's School of Respiratory Care as described below.

**Applicants must be admitted to Marshall University if applying to St. Mary's School of Respiratory Care.** The following must be submitted to Marshall University (if not already a student at Marshall University) at the following address:

Office of Admissions  
Marshall University  
One John Marshall Drive  
Huntington, WV 25755

1. Completed MU application
2. Appropriate MU application fee
3. Official transcripts from ALL colleges and universities attended

The following must be submitted/completed by the deadline to the Center for Education at the following address:

Admissions Office  
St. Mary's Medical Center – Center for Education  
2900 First Avenue  
Huntington, WV 25702

1. Completed St. Mary's School of Respiratory Care application found on the web page at <http://www.st-marys.org>.
  - Go to the "Education & Training" tab.
  - Click on "School of Respiratory Care".
  - The application form is found on that page.
2. If the application is mailed, an application fee of \$30, which is non-refundable must be included (check or money order, no cash please).
3. If the application is hand-delivered, an application fee of \$30, which is non-refundable, may be paid at St. Mary's Medical Center on the 3<sup>rd</sup> Floor Business Office in person or with a credit/debit card by phone at 304-526-8932, or at the Center for Education (cash or check only).

Payments by Mail or In Person	Phone Payments	Payments Made In Person
St. Mary's Medical Center 2900 First Avenue, Huntington, WV, 25702  Attn: Ginger Walker	St. Mary's Medical Center Accounting Office – 3 <sup>rd</sup> Floor  Phone: 304-526-8932  Attn: Ginger Walker  A 2.25% credit/debit card fee will be applied	St. Mary's Medical Center - Center for Education 2853 5 <sup>th</sup> Ave. Huntington, WV 25702  Cash, Check, Money Order Only  Pay fees to:  Melba Curry – Admissions Leah Chapman - Admissions Paula Cremeans – Admin. Asst. Dr. Joey Trader – VP, CFE

4. Official high school transcript or GED.
5. Official transcript from ALL colleges or universities attended, including Marshall University. ACT scores, if taken, (St. Mary's code is 4551). If the ACT has not been taken, contact Marshall University for dates of administration.
6. Sign the Code of Conduct Statement and the Drug & Alcohol Testing statement contained in the application.

**I. GED APPLICANTS MUST HAVE THE FOLLOWING:**

1. Met criteria for GED admission as stated in the Marshall University catalog.
2. Completed 12 college semester credit hours, which must be 100 level or above courses and be taken for a grade. The grades must be "C" or above.
3. An overall 2.00 GPA or better on any college courses completed.

4. An overall 2.00 GPA on all courses completed at Marshall University.
5. ACT score, if taken, sent to the Center for Education at the address above.
6. Requested that GED Certification be sent to both St. Mary's School of Respiratory Care and Marshall University.

J. APPLICANTS WITH AT LEAST 12 HOURS OF COLLEGE CREDIT MUST HAVE THE FOLLOWING:

1. A high school diploma or GED.
2. An overall 2.00 GPA or better on any college courses completed.
3. An overall 2.00 GPA on all courses completed at Marshall University.
4. ACT score, if taken, sent to the Center for Education at the address above.

**If any applicant earns a D, F, or W in a required pre-entry course (BSC 227 & 228L, CHM 205, ENG 101), the applicant may still be accepted into the program provisionally given the applicant completes all of these courses with a C or better prior to the first day of the first respiratory course.**

**If any applicant earns a D, F, or W in any other required support course(s), the applicant may be considered for re-admission, however, you must still retake and earn a C or greater in the required support course(s) per the normal course progression regarding co-requisite or prerequisite placement.**

K. APPLICANTS REQUESTING TRANSFER/ADVANCED PLACEMENT FROM ANOTHER RESPIRATORY CARE PROGRAM MUST HAVE THE FOLLOWING:

1. An overall 2.00 GPA or better on all courses completed.
2. An overall 2.00 GPA on all courses completed at Marshall University.
3. A copy of all course syllabi for the completed courses at the previous respiratory school.
4. Paid a \$75 transfer consideration fee.

NOTE: Transfer/Advanced Placement applicants will be evaluated on an individual basis.

L. ADDITIONAL INFORMATION FOR ADMISSION TO ST. MARY'S SCHOOL OF RESPIRATORY CARE:

- A "C" grade or better is required for each of the courses transferring for credit toward the requirements for the respiratory care program.
- CLEP credit is also accepted for some courses (the applicant is responsible for all fees associated with this).

### **Challenge Exam Procedure**

If a student feels they have already met the requirements of a specific respiratory therapy course, they have the option to bypass attendance for that specific course. The procedure below outlines the steps and requirements students must meet/take to bypass course attendance.

- The student indicates the course they intend to bypass to the program director at St. Mary's CFE - School of Respiratory Care
- The program director in conjunction with the instructor of record for the course can either create a challenge examination or use an existing comprehensive final examination.
- The student completes the exam under the supervision of St. Mary's CFE.
- The grade the student receives for the course is at the discretion of the instructor of record and program director.
- The student must still register for the course and pay any associated course fees.



- The student has the option to attend the course and complete the course if they fail the given challenge/final examination.
- Marshall University College Of Health Professions must be provided with sufficient documentation that a student has completed a challenge exam and the grade the student will receive.
- St. Mary's School of Respiratory Care and Marshall University reserve the right to accept or reject individual non-major courses that are other than those listed in the respiratory curriculum.
- It is the applicant's responsibility to assure all transcripts, fees, etc. are present at both St. Mary's Center for Education and Marshall University.
- Applicants missing information will not be considered.
- Applicants will be notified concerning their acceptance.

M. ALL APPLICANTS TO THE SCHOOL OF RESPIRATORY CARE MUST BE ABLE TO MEET THE PHYSICAL, EMOTIONAL, AND FUNCTIONAL DEMANDS OF A RESPIRATORY THERAPIST POSITION. THE CRITERIA FOLLOW:

- Applicants need to be aware that respiratory and respiratory education can be rigorous and physically, mentally, and emotionally demanding. A healthy status in all areas is essential for the completion of the program.
- The public expects the professional respiratory therapist to have been prepared to provide safe and effective care.
- The Americans with Disabilities Act (ADA) provides the legal framework to guide these responsibilities.
- If you are a student who has a disability requiring accommodations, notify ALL instructors of each course within the first two (2) weeks of class.

Specific health, physical and technical requirements are required from all candidates entering the Respiratory Care program. The clinical practicum requires that each student be capable of demonstrating the following functions

The attached Essential Functions/Core Performance Standards Worksheet provides the framework and categories that relate to an individual's functional ability, activities/attributes, and any limitations/deficits of functional abilities

1. Gross Motor Ability	<ul style="list-style-type: none"> <li>• Move within confined spaces</li> <li>• Sit and maintain balance</li> <li>• Stand and maintain balance</li> <li>• Reach above shoulders</li> <li>• Reach below the waist</li> <li>• Reach out front</li> </ul>	<p>Skills:</p> <ul style="list-style-type: none"> <li>• Grasp, hold, and read small instruments such as volume-measuring devices.</li> <li>• Lift medication vials to eyes to read.</li> <li>• Record patient data in the record or change the settings on equipment by turning the knob and observing change(s).</li> <li>• Squeeze the suction catheter button</li> <li>• Squeeze medication vials to empty.</li> <li>• Write in the patient chart.</li> <li>• The ability to move around and maintain your balance in tight spaces between patients and equipment.</li> </ul>
2. Fine Motor Ability	<ul style="list-style-type: none"> <li>• Pickup objects with hands</li> <li>• Grasp small objects with hands</li> <li>• Write clearly and neatly with a pen or pencil</li> <li>• Enter data on a keyboard</li> <li>• Pinch/squeeze or pick up objects</li> <li>• Twist objects/knobs with hands</li> <li>• Possess manual dexterity for sterility and infection control purposes.</li> </ul>	<p>Skills:</p> <ul style="list-style-type: none"> <li>• Change equipment settings above the head and below the waist.</li> <li>• Function in an ICU environment by moving about in an ICU room to perform procedures on the patient.</li> <li>• Students must also read patient chart, equipment settings, and/or equipment displays</li> <li>• Sit or stand to record findings.</li> </ul>
3. Physical Endurance	<ul style="list-style-type: none"> <li>• Stand at the patient's side during the procedure</li> </ul>	<p>Skills:</p> <ul style="list-style-type: none"> <li>• Bend to change equipment</li> </ul>

	<ul style="list-style-type: none"> <li>• Sustain repetitive movements</li> <li>• Maintain physical tolerance (continue tasks throughout a shift)</li> <li>• Work and complete tasks at a reasonable pace</li> </ul>	<p>settings on the floor, at knee level, waist level, chest level, eye level, or above the head.</p> <ul style="list-style-type: none"> <li>• Gather equipment and manually resuscitate patients.</li> <li>• Make rapid adjustments if needed to ensure patient safety.</li> <li>• Make way to patient's room if an emergency is called using stairs.</li> <li>• Turn to change settings on the monitor while standing at the patient's bedside</li> </ul>
4. Physical Strength	<ul style="list-style-type: none"> <li>• Push, pull, lift, move, and support 10 - 60 pounds</li> <li>• Carry equipment/supplies</li> <li>• Squeeze with hands (e.g., use of a manual resuscitator)</li> </ul>	<p>Skills:</p> <ul style="list-style-type: none"> <li>• Procedures such as CPT and CPR require that you stand, move, and perform repetitive procedures on patients throughout the day.</li> <li>• You will repeat this procedure periodically throughout a shift.</li> </ul>
5. Mobility	<ul style="list-style-type: none"> <li>• Twist</li> <li>• Bend</li> <li>• Stoop/squat</li> <li>• Move quickly</li> <li>• Walk and climb ladders/stools/stairs</li> </ul>	<p>Skills:</p> <ul style="list-style-type: none"> <li>• Help patient up in bed and from stretcher to bed and back.</li> <li>• Carry medications, pulse oximeter, stethoscope, or other equipment to the patient room.</li> <li>• Push the ventilator or other heavy equipment from the respiratory care department to the patient room.</li> <li>• Lift equipment from bed height to shelf height above chest level.</li> </ul>
6. Hearing	<ul style="list-style-type: none"> <li>• Hear normal and different speaking level sounds</li> <li>• Hear faint sounds &amp; voices</li> <li>• Hear audible alarms</li> <li>• Hear telephones</li> </ul>	<p>Skills:</p> <ul style="list-style-type: none"> <li>• Hear audible alarms such as a ventilator alarm.</li> <li>• Hear overhead pages to call for emergency assistance</li> </ul>

	<ul style="list-style-type: none"> <li>Hear sounds with a stethoscope (e.g., lungs and heart sounds)</li> <li>Hear in situations when you are not able to see the patients, family members, and other members of the healthcare team</li> </ul>	<ul style="list-style-type: none"> <li>Listen to heart sounds to determine if the heart is beating.</li> <li>Determine the intensity and quality of patient breath sounds to help determine a diagnosis.</li> <li>Listen to the patient's breath sounds to determine if the patient is breathing.</li> </ul>
7. Visual	<ul style="list-style-type: none"> <li>See objects from 20 inches to 20 feet away</li> <li>Distinguish color and intensity</li> <li>See emergency lights/lamps objects object up to 20 inches away</li> <li>Use peripheral vision</li> <li>Use depth perception</li> <li>Visually assess clients</li> </ul>	<p>Skills:</p> <ul style="list-style-type: none"> <li>Confirm settings visually such as with ventilator display. Read the patient chart to determine the correct therapy.</li> <li>Read settings on monitors and other equipment.</li> <li>Visually assess patient color to assess for hypoxia or any changes in patient condition.</li> </ul>
8. Tactile	<ul style="list-style-type: none"> <li>Detect environmental temperature</li> <li>Detect the patient's temperature</li> <li>Feel the differences in sizes, and shapes (e.g., palpate artery/vein)</li> <li>Feel differences in sizes and shapes</li> <li>Feel vibrations (e.g., pulses)</li> </ul>	<p>Skills:</p> <ul style="list-style-type: none"> <li>Assess the patient by feeling for a pulse, temperature, tactile fremitus, edema, and subcutaneous emphysema.</li> <li>Palpate vein, artery, and other body landmarks</li> <li>Notice surface characteristics of skin turgor, pitting edema, rashes</li> </ul>
9. Smell	<ul style="list-style-type: none"> <li>Detect odors from the client</li> <li>Detect smoke</li> <li>Detect gas or noxious smells (e.g. gas leak or smoke)</li> </ul>	<p>Skills:</p> <ul style="list-style-type: none"> <li>Assess for unusual odors originating from the patient or environment requiring attention. <ul style="list-style-type: none"> <li>✓ Foul-smelling drainage</li> <li>✓ Alcohol</li> <li>✓ Smoke</li> <li>✓ Gases</li> <li>✓ Noxious smells</li> </ul> </li> </ul>
10. Reading	<ul style="list-style-type: none"> <li>Read and interpret physicians' orders</li> </ul>	<p>Skills:</p>

	<ul style="list-style-type: none"> <li>• Read and understand written documents</li> <li>• Read the very fine or small print</li> <li>• Read digital and analog displays</li> </ul>	<ul style="list-style-type: none"> <li>• Read and interpret physician orders and/or physician, therapist, and nurse's notes.</li> <li>• Read from a computer monitor screen.</li> <li>• Gather data accurately, and in a reasonable amount of time to ensure safe and effective patient care relative to other caregivers.</li> </ul>
11. Math	<ul style="list-style-type: none"> <li>• Calibrate equipment</li> <li>• Compute fractions</li> <li>• Convert numbers to metric</li> <li>• Count rates (e.g. pulses, breathing rate)</li> <li>• Tell and measure time (duration)</li> <li>• Perform basic arithmetic functions add, subtract, multiply, divide</li> <li>• Read and understand columns of writing (e.g. flow sheets)</li> <li>• Read digital displays and graphic printouts</li> <li>• Read graphs (e.g. vital sign sheets, ventilator flow)</li> <li>• Read measurement marks</li> <li>• Record numbers (chart observed parameters)</li> <li>• Use a calculator</li> <li>• Use measuring tools (e.g., thermometer, MIP/NIF, Peak Flow, VC)</li> </ul>	<p>Skills:</p> <ul style="list-style-type: none"> <li>• Read, comprehend and interpret patient graphics charts and graphic displays.</li> <li>• Perform basic arithmetic functions to calculate minute ventilation, convert temperature, correctly place graduated tubing and other functions.</li> <li>• V</li> <li>•</li> </ul>
12. Emotional Stability	<ul style="list-style-type: none"> <li>• Establish therapeutic boundaries</li> <li>• Provide client with appropriate emotional support</li> <li>• Adapt to changing environment stress</li> <li>• Deal with the unexpected (e.g., emergency situations, trauma)</li> </ul>	<p>Skills:</p> <ul style="list-style-type: none"> <li>• Provide safe patient care despite a rapidly changing and intensely emotional environment.</li> <li>• Perform multiple tasks concurrently such as delivering medication or oxygen in one room while performing an arterial blood gas in another (in an</li> </ul>

	<ul style="list-style-type: none"> <li>• Perform multiple responsibilities concurrently</li> <li>• Show appropriate compassion through communications</li> </ul>	<p>emergency room or general floor environment).</p> <ul style="list-style-type: none"> <li>• Maintain enough composure to provide for effective patient care despite crisis circumstances.</li> </ul>
13. Analytical Thinking	<ul style="list-style-type: none"> <li>• Evaluate outcomes</li> <li>• Prioritize tasks</li> <li>• Problem solve</li> <li>• Process and interpret information from multiple sources</li> <li>• Transfer/extrapolate knowledge from one situation to another</li> <li>• Use long- and short-term memory</li> </ul>	<p>Skills:</p> <ul style="list-style-type: none"> <li>• Evaluate priorities and different sources of diagnostic information to help arrive at a patient diagnosis.</li> <li>• Appropriately evaluate data to notify physicians and nurses when necessary.</li> </ul>
14. Critical Thinking	<ul style="list-style-type: none"> <li>• Identify cause-effect relationships</li> <li>• Plan/control activities for others</li> <li>• Synthesize knowledge and skills</li> <li>• Sequence information and adapt decisions based on new information</li> <li>• Make decisions independently</li> </ul>	<p>Skills:</p> <ul style="list-style-type: none"> <li>• Evaluate priorities and different sources of diagnostic information to help arrive at a patient diagnosis and treatment plan.</li> </ul>
15. Interpersonal	<ul style="list-style-type: none"> <li>• Respect differences in clients</li> <li>• Negotiate interpersonal conflict</li> <li>• Establish rapport with patients, patients family's and co-workers</li> <li>• Work effectively with physicians, staff, clients, and their families</li> <li>• Respect &amp; value cultural differences in others</li> </ul>	<p>Skills:</p> <ul style="list-style-type: none"> <li>• Communicate effectively under any circumstance (courteous or offensive) with patients, families, doctors, nurses, and other staff to meet therapeutic goals for the patient.</li> </ul>
16. Communication	<ul style="list-style-type: none"> <li>• Convey information through writing</li> <li>• Teach patients &amp; Family members</li> <li>• Explain procedure(s)</li> </ul>	<p>Skills:</p> <ul style="list-style-type: none"> <li>• Communicate effectively and appropriately with doctors, nurses, patients, family, and other staff to provide for</li> </ul>

	<ul style="list-style-type: none"> <li>• Give oral reports</li> <li>• Speak clearly and distinctly</li> <li>• Speak on the telephone</li> </ul>	most effective and efficient patient care.
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NOTE: This description reflects the general details considered necessary to describe the principle functions of the physical demands for this program.

Formulated: Fall 2005

Revised: Spring 2005, 7/10, 8/12, 12/14; 7/15, 6/24

Reviewed: January 2010; 7/17, 7/18, 6/19, 7/21; 6/22, 6/23, 7/25

## **CURRICULUM OBJECTIVES/STUDENT LEARNING OUTCOMES**

Upon completion of the program, the graduate will:

- I. ASSESSMENT
  - a. Complete comprehensive assessments.
- II. CLINICAL DECISION MAKING
  - a) Utilize assessment data and evidence-based information to make decisions that ensure safe, effective, individualized care.
  - b) Evaluate the effectiveness of care and modify patient care as needed.
- III. CARING INTERVENTIONS
  - a) Provide care that assists the patient in meeting needs.
  - b) Implement caring behaviors that are nurturing, protective, compassionate, and person-centered.
- IV. TEACHING/LEARNING
  - a) Implement an individualized teaching plan based on the assessed needs of the patient and significant others.
  - b) Provide assistive personnel with relevant instruction to support achievement of patient outcomes.
- V. COLLABORATION
  - a) Collaborate with the patient, significant others, and members of the health care team to plan, implement, and evaluate patient care.
  - b) Function as an advocate, liaison, coordinator and colleague in working with the health care team toward the achievement of positive patient outcomes.
- VI. MANAGING CARE
  - a) Assist the patient to achieve positive outcomes by effectively utilizing human, physical, financial, and technological resources.
  - b) Utilize the management process (plan, organize, direct, and control) to assist patients to interact effectively with the health care system.
- VII. COMMUNICATION
  - a) Communicate effectively with members of the health care team utilizing appropriate methods and skills.
  - b) Utilize therapeutic communication skills when interacting with patients and significant others.
- VIII. PROFESSIONAL BEHAVIORS
  - a) Practice respiratory care within the ethical, legal, and regulatory framework.

Approved: June 2007    Reviewed: 7/21; 6/22, 6/23, 7/25,



Title of Position: Registered Respiratory Therapist

**Aptitudes:**

These aptitudes are considered to be occupationally significant for the specific job description: i.e., essential for successful job performance.

**Reading/Verbal:**

Ability to read and understand meanings or words and ideas associated with them, and to use them effectively. To comprehend language, understand relationships between words, and understand the meanings of whole sentences and paragraphs. The ability present information and ideas clearly.

**Writing:**

Ability to write with proper grammar and spelling.

**Numerical:**

Ability to perform arithmetic operations quickly and accurately.

**Form perception:**

Ability to perceive pertinent detail in objects or in pictorial or graphic material: to make visual comparisons and discriminations and see slight differences in shapes and shadings of figures and widths and lengths of lines.

**Clerical Perception:**

Ability to perceive pertinent detail in verbal or tabular material. To observe differences in copy, proofread words and numbers, and avoid perceptual errors in arithmetic computation.

**Motor Coordination:**

Ability to coordinate eyes and hands or fingers rapidly and accurately in making precise movements with speed. The ability to make a movement response accurately and quickly.

**Finger Dexterity:**

The ability to move the fingers and manipulate small objects with the fingers rapidly and accurately.

**Manual Dexterity:**

Ability to move the hands easily and skillfully. To work with the hands in placing and turning motions.

**Temperaments:**

These temperaments are considered to be occupationally significant for the specific job description: i.e., essential for successful job performance,

- Situations involving communication with patients and the public, whether on the telephone, in writing or in person.
- Situations involving a variety of duties often characterized by frequent change.
- Situations involving the necessity of dealing with people in actual job duties beyond giving and receiving instructions.
- Situations involving influencing people in their opinion, attitudes, or judgments about ideas or things.
- Situations involving performing adequately under stress when confronted with the critical or

unexpected.

- Situations involving the evaluation of information against sensory or judgmental criteria.
- Situations involving the evaluation of information against measurable or verifiable criteria.
- Situations involving the interpretation of feelings, ideas, or facts in terms of personal viewpoint.
- Situations involving the precise attainment of set limits, tolerance or standards.

### **Physical Demands:**

Physical demands are those physical activities required of a worker in a job. The worker must possess physical capabilities at least in an amount equal to the physical demands made by the job. The minimum physical qualifications are listed below.

#### **Reaching:**

Extending the hands and arms in any direction.

#### **Handling:**

Seizing, holding, grasping, turning, or otherwise working with the hand or hands.

**Fingering:** Picking, pinching, or otherwise working with the fingers primarily.

#### **Feeling:**

Perceiving such attributes of objects and materials as size, shape, temperature, or texture, by means of receptors in the skin particularly those of the fingertips.

#### **Talking:**

Expressing or exchanging ideas by means of the spoken word.

#### **Hearing:**

Perceiving the nature of sounds by the ear.

#### **Acuity, far:**

Clarity of vision at 20 feet or more.

#### **Acuity, near**

Clarity of vision at 20 inches or less.

### **Depth perception:**

3-dimensional vision. The ability to judge distance and space relationships so as to see objects where and as they actually are.

### **Accommodation:**

Adjustment of the lens of the eye to bring an object into sharp focus. This item is especially important when doing near-point work at varying distances from the eye.

## Essential Function/Core Performance Standards – Respiratory Therapy Student

In your role as a respiratory therapy student, there are job-specific health, physical and technical requirements required of all candidates enrolled in the Respiratory Care program. When participating in your assigned clinical practicum, you will be required to demonstrate the following tasks and functions.

You will demonstrate gross and fine motor abilities, physical strength and endurance, mobility, hearing, visual, tactile, smell, reading, math, emotional stability, analytical and critical thinking, and interpersonal and communicative skills.

You must review the descriptions in each area and acknowledge a complete understanding of these requirements.

The attached Essential Functions/Core Performance Standards Worksheet provides valuable and essential information by categories that relate to an individual's functional ability, activities/attributes, and any limitations/deficits of practical skills. The Respiratory Care Program shall implement these standards in combination with the professional scope of practice, job analysis, and expert consultation to make decisions related to the ability of the respiratory therapy student to perform the essential functions of respiratory care.

## Essential Function/Core Performance Standards – Respiratory Therapy Student

1. Gross Motor Ability	<ul style="list-style-type: none"><li>• Move within confined spaces</li><li>• Sit &amp; Maintain Balance</li><li>• Stand &amp; Maintain Balance</li><li>• Reach Above Shoulders</li><li>• Reach Below Waist</li><li>• Extending the hands and arms in any Direction</li><li>• Seizing, holding, grasping, turning, or otherwise working with the hand or hands</li><li>• Feeling: Perceiving such attributes of objects and materials as size, shape, temperature, or texture, using receptors in the skin particularly those of the fingertips.</li></ul>	<p>Skills:</p> <ul style="list-style-type: none"><li>• Grasp, hold and read small instruments such as volume-measuring devices.</li><li>• <b>Lift</b> medication vials to eyes to read.</li><li>• Record patient data in the record or change the settings on equipment by adjusting settings and observing change(s).</li><li>• Squeeze the suction catheter button.</li><li>• Squeeze medication vials to empty.</li><li>• Write/keyboard entry in the patient chart.</li><li>• Reach for IV poles</li><li>• Plug electric-powered equipment into the wall electrical outlet</li></ul>
2. Fine Motor Ability	<ul style="list-style-type: none"><li>• Pickup objects with hands</li><li>• Grasp small objects with hands</li><li>• Fingering: Picking, pinching, or otherwise working with the fingers primarily.</li></ul>	<p>Skills:</p> <ul style="list-style-type: none"><li>• Change equipment settings above the head and below the waist.</li><li>• Function in an ICU environment by moving about in an ICU room</li></ul>

	<ul style="list-style-type: none"> <li>• Feeling: Perceiving such attributes of objects and materials as size, shape, temperature, or texture, using receptors in the skin particularly those of the fingertips.</li> <li>• Write clearly and neatly with a pen or pencil</li> <li>• Type on a keyboard</li> <li>• Pinch/squeeze or pick up objects</li> <li>• Twist knobs with hands</li> <li>• Possess manual dexterity for sterility and infection control purposes.</li> </ul>	<p>to perform procedures on the patient.</p> <ul style="list-style-type: none"> <li>• Student must also read the patient chart, equipment settings, and/or equipment displays.</li> <li>• Sit or stand to record findings.</li> <li>• Use pen/pencil</li> <li>• Manipulate a syringe</li> <li>• Turn knobs or objects using both hands</li> <li>• Use an eyedropper</li> </ul>
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<p>3. Physical Endurance</p>	<ul style="list-style-type: none"> <li>• Stand at the patient's side during the procedure</li> <li>• Sustain repetitive movements</li> <li>• Maintain physical tolerance - continue tasks throughout a shift</li> <li>• Work and complete tasks at a reasonable pace</li> </ul>	<p>Skills:</p> <ul style="list-style-type: none"> <li>• Bend to change equipment settings on the floor, at knee level, waist level, chest level, eye level, or above head.</li> <li>• Using both hands to do CPR</li> <li>• Gather equipment and manually resuscitate patients.</li> <li>• Make rapid adjustments if needed to ensure patient safety.</li> <li>• Make way to patient's room if an emergency is called using stairs.</li> <li>• Turn to change settings on the monitor while standing at the patient's bedside</li> <li>• Work an entire shift of 8, 12, and 16 hours</li> <li>• Stand at the patient's side during a surgical or therapeutic procedure</li> </ul>
<p>4. Physical Strength</p>	<ul style="list-style-type: none"> <li>• Lift 25 - 100 pounds</li> <li>• Carry equipment/supplies 25 pounds to 100 pounds</li> <li>• Squeeze with hands (e.g., use a manual resuscitator)</li> <li>• Able to push/roll 60 pounds</li> <li>• Move heavy objects weighing from 10-50 pounds by using upper body strength.</li> </ul>	<p>Skills:</p> <ul style="list-style-type: none"> <li>• Procedures such as CPT and CPR require that you stand, move, and perform repetitive procedures on patients throughout the day.</li> <li>• Repeat this procedure periodically throughout a shift.</li> <li>• Push and pull 25 pounds – Move Ventilators</li> <li>• Support 25 pounds of weight - ambulate patient</li> <li>• Lift 25 pounds – pick up the child or transfer the patient</li> <li>• Move light objects weighing up to 10 pounds - IV poles</li> <li>• Move heavy objects weighing from 11 to 50 pounds</li> <li>• Defend self against the combative patient</li> <li>• Carry equipment/supplies</li> <li>• Use upper body strength - perform CPR, physically restrain a patient</li> </ul>

		<ul style="list-style-type: none"> <li>• Use upper body strength - perform CPR, physically restrain a patient</li> </ul>
5. Mobility	<ul style="list-style-type: none"> <li>• Twist, Bend, Stoop/Squat</li> <li>• Move quickly - Walk (at times at a rapid pace)</li> <li>• Climb ladders/stools/stairs</li> <li>• Physical endurance and ability to work effectively in a clinical setting for 8, 12, and 16 hrs./day</li> <li>• Move in and out of treatment areas.</li> <li>• Reach equipment and parts of the patient's body.</li> <li>• Reach below waist level to manipulate equipment.</li> <li>• Able to move quickly from place to place to perform patient care</li> <li>• Reach above shoulder height to manipulate equipment.</li> </ul>	<p>Skills:</p> <ul style="list-style-type: none"> <li>• Help patient up in bed and from stretcher to bed and back.</li> <li>• Support and transfer patients safely from bed to wheelchair, and modify patient position in bed</li> <li>• Carry medications, pulse oximeter, stethoscope, or other equipment to the patient room.</li> <li>• Push the ventilator or other heavy equipment from the respiratory care department to the patient room.</li> <li>• Lift equipment from bed height to shelf height above chest level.</li> <li>• Respond to Emergency, Rapid Response, and STAT calls</li> </ul>
6. Hearing	<ul style="list-style-type: none"> <li>• Hear normal and different speaking level sounds</li> <li>• Communicate and interact with patients, staff, and families from a variety of cultural backgrounds.</li> <li>• Hear percussion sounds during patient assessment.</li> <li>• Hear audible equipment alarms</li> <li>• Hear telephones</li> <li>• Hear sounds with a stethoscope lung, and heart sounds</li> <li>• Perceiving the nature of sounds by the ear</li> </ul>	<p>Skills:</p> <ul style="list-style-type: none"> <li>• Hear audible alarms such as a ventilator alarm.</li> <li>• Hear overhead pages to call for emergency assistance.</li> <li>• Listen to heart sounds to determine if the heart is beating.</li> <li>• Determine the intensity and quality of the patient's breath sounds to help determine a diagnosis.</li> <li>• Listen to the patient's breath sounds to determine if the patient is breathing.</li> </ul>
7. Visual	<ul style="list-style-type: none"> <li>• Distinguish color</li> <li>• Distinguish color intensity</li> <li>• See emergency lights/lamps</li> <li>• Use peripheral vision</li> <li>• Usually assess clients</li> </ul>	<ul style="list-style-type: none"> <li>• Confirm settings visually such as with ventilator display.</li> <li>• Read the patient chart and read written instructions/orders to determine the correct therapy.</li> </ul>

	<ul style="list-style-type: none"> <li>• Acuity, far: Clarity of vision at 20 feet or more.</li> <li>• Acuity, near: Clarity of vision at 20 inches or less.</li> <li>• Depth perception: 3-dimensional vision. <ul style="list-style-type: none"> <li>✓ The ability to judge distance and space relationships to see objects where and as they are.</li> </ul> </li> <li>• Accommodation: Adjustment of the lens of the eye to bring an object into sharp focus. <ul style="list-style-type: none"> <li>✓ This is especially important when doing near-point work at varying distances from the eye.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Read settings on monitors and other equipment.</li> <li>• Visually assess patient color to assess for hypoxia or any changes in patient condition.</li> <li>• See objects up to 20 inches away (e.g., information on a computer screen, skin conditions) and See objects up to 20 feet away (e.g., patient in a room)</li> <li>• Use depth perception</li> <li>• Use peripheral vision</li> <li>• Distinguish color (e.g., color codes on supplies, charts, bed)</li> <li>• Distinguish color intensity (e.g., flushed skin, skin paleness)</li> </ul>
8. Tactile	<ul style="list-style-type: none"> <li>• Detect environmental temperature</li> <li>• Detect temperature</li> <li>• Feel the differences <b>in</b> sizes, shapes (e.g., palpate artery/vein)</li> <li>• Feel vibrations (e.g., pulses)</li> </ul>	<b>Skills:</b> <ul style="list-style-type: none"> <li>• Assess the patient by feeling for pulse, temperature, tactile fremitus, edema, and subcutaneous emphysema.</li> </ul>
9. Smell	<ul style="list-style-type: none"> <li>• Read and interpret physicians' orders</li> <li>• Read and understand written documents</li> <li>• Read the very fine or small print</li> </ul>	<b>Skills:</b> <ul style="list-style-type: none"> <li>• Read and interpret physician orders and or physician, therapist, and nurse's notes.</li> <li>• Read from a computer monitor screen.</li> <li>• Gather data accurately, and in a reasonable amount of time to ensure safe and effective patient care relative to other caregivers.</li> </ul>
10. Reading	<ul style="list-style-type: none"> <li>• Read and interpret physicians' orders</li> <li>• Read and understand written documents</li> <li>• Read very fine or small print</li> </ul>	<b>Skills:</b> <ul style="list-style-type: none"> <li>• Read and interpret physician orders and or physician, therapist, and nurse's notes.</li> <li>• Read from a computer monitor screen.</li> </ul>

		<ul style="list-style-type: none"> <li>• Gather data accurately, and in a reasonable amount of time to ensure safe and effective patient care relative to other caregivers.</li> </ul>
11. Math	<ul style="list-style-type: none"> <li>• Calibrate equipment</li> <li>• Compute fractions</li> <li>• Convert numbers to metric</li> <li>• Count rates (e.g., pulses, breathing rate)</li> <li>• Tell time and measure time (duration)</li> <li>• Perform basic arithmetic functions add, subtract, multiply, divide</li> <li>• Read and understand columns writing (e.g., flow sheets)</li> <li>• Read digital displays and graphic printouts</li> </ul>	<b>Skills:</b> <ul style="list-style-type: none"> <li>• Read and interpret patient graphics charts and graphic displays.</li> <li>• Perform basic arithmetic functions in order to calculate: <ul style="list-style-type: none"> <li>✓ Minute ventilation,</li> <li>✓ Convert temperature</li> <li>✓ Correctly place graduated tubing and other functions.</li> </ul> </li> </ul>

### Essential Function/Core Performance Standards – Respiratory Therapy Student

12. Emotional Stability	<ul style="list-style-type: none"> <li>• Read measurement marks</li> <li>• Record numbers (chart observed parameters)</li> <li>• Use a calculator</li> <li>• Use measuring tools: <ul style="list-style-type: none"> <li>✓ Thermometer</li> <li>✓ NIF gauge</li> <li>✓ Peak Flow Meter</li> <li>✓ Vital Capacity gauge</li> </ul> </li> <li>• Establish therapeutic boundaries</li> <li>• Provide the client with appropriate emotional support</li> <li>• Adapt to changing environment/stress</li> <li>• Deal with the unexpected (e.g., emergency situations, trauma)</li> </ul>	<b>Skills:</b> <ul style="list-style-type: none"> <li>• Provide for safe patient care despite a rapidly changing and intensely emotional environment.</li> <li>• Perform multiple tasks concurrently such as delivering medication or oxygen in one room while performing an arterial blood gas in another (in an emergency room or general floor environment).</li> <li>• Maintain enough composure to provide for safe effective patient care despite crisis circumstances.</li> </ul>
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	<ul style="list-style-type: none"> <li>• Perform multiple responsibilities concurrently</li> <li>• Show appropriate compassion through communication</li> </ul>	
13. Analytical Thinking	<ul style="list-style-type: none"> <li>• Evaluate outcomes</li> <li>• Prioritize tasks</li> <li>• Problem solve</li> <li>• Process information</li> <li>• Transfer/extrapolate knowledge from one situation to another</li> <li>• Use long- and short-term memory</li> </ul>	<b>Skills:</b> <ul style="list-style-type: none"> <li>• Evaluate priorities and different sources of diagnostic information to help arrive at a patient diagnosis.</li> <li>• Appropriately evaluate data in order to notify physicians and nurses when necessary.</li> </ul>
14. Clinical Thinking	<ul style="list-style-type: none"> <li>• Identify cause-effect relationships</li> <li>• Plan/control activities for others</li> <li>• Synthesize knowledge and skills</li> <li>• Sequence information</li> </ul>	<b>Skills:</b> <ul style="list-style-type: none"> <li>• Evaluate priorities and different sources of diagnostic information to help arrive at a patient diagnosis and treatment plan.</li> </ul>
15. Interpersonal	<ul style="list-style-type: none"> <li>• Respect differences in clients</li> <li>• Establish rapport with clients and co-workers</li> <li>• Work effectively with physicians, staff, clients, and their families</li> </ul>	<b>Skills:</b> <ul style="list-style-type: none"> <li>• Communicate effectively under any circumstance (courteous or offensive) with patients, families, doctors, nurses and other staff in order to meet therapeutic goals for the patient.</li> </ul>
Communication	<ul style="list-style-type: none"> <li>• Convey information through writing</li> <li>• Explain procedure(s)</li> <li>• Give oral reports</li> <li>• Speak clearly and distinctly</li> <li>• Speak on the telephone</li> <li>• Expressing or exchanging ideas by means of the spoken word</li> </ul>	<b>Skills:</b> <ul style="list-style-type: none"> <li>• Communicate effectively and appropriately with doctors, nurses, patients, family, and other staff to provide for most effective and efficient patient care.</li> </ul>

For the following: **Never**=0% **Rarely**=1-10% **Occasionally**=11-33% **Frequently**=34-66%  
**Continuously**=67 -100%

Description	Weight Limit	Never 0%	Rarely 1-10%	Occasionally 11-33%	Frequently 34-66%	Continuously 67 -100%
Lifting	100 lbs.		√			
Carrying	100 lbs.		√			
Pushing	100 lbs.		√			
Bending/Stooping			√			
Crawling		√				
Reaching Above Shoulder Level			√			
Pushing/Pulling			√			
Sitting				√		
Walking					√	
Crouching			√			
Kneeling			√			
Standing					√	
Climbing			√			
<b>ENVIRONMENTAL SURROUNDINGS</b>						
The environmental surroundings of a worker in this job description						
Time Spent Inside						√
Time Spent Outside		√				

**TITLE:** PROGRAM REQUIREMENTS: SCHOOL OF RESPIRATORY CARE

**POLICY:** Graduation from the program requires successful completion, with a grade of “C” or higher, of one hundred twenty-one (121) credit hours. Seventy (70) credit hours are respiratory courses, and fifty one (51) credit hours are support courses.

**PURPOSE:** To meet the requirements for graduation.

**PROVISIONS OR DIRECTIONS FOR IMPLEMENTATION:**

## Student Curriculum Guide

### Bachelor of Science

#### Freshman Year

Course Number	Fall Semester Course Description	Credit Hours	Course Number	Spring Semester Course Description	Credit Hours
BSC 227 & 227L	Human Anatomy	4	BSC 228 & 228L	Human Anatomy	4
CHM 205	General Chemistry	3	SOC 200	Introduction to Sociology	3
MTH 121	Concepts & Application	3	HS 200	Medical Terminology	3
ENG 101	English Composition	3		Humanities Elective	3
FYS 100	First Year Seminar	3		Fine Arts – ART 112, MUS 142, THE 112	3
	<b>TOTAL HOURS</b>	<b>16</b>		<b>TOTAL HOURS</b>	<b>16</b>

#### Sophomore Year

Course Number	Fall Semester Course Description	Credit Hours	Course Number	Spring Semester Course Description	Credit Hours
BSC 250 & 250L	Microbiology Human Diseases	4	RSP 201	Pulmonary Pathophysiology	3
RSP 100	Respiratory Pharmacology	3	RSP 203	Respiratory Internship 1	4
RSP 101	Introduction to Respiratory Care	3	RSP 212	Acute/Chronic Pulmonary Mgt	3
RSP 102	Introduction to Respiratory Care Procedures	3	CMM 103	Fundamentals of Speech	3
RSP 102L	Introduction to Respiratory Care Procedures Lab	1	ENG 201	English Composition	3
	<b>TOTAL HOURS</b>	<b>14</b>		<b>TOTAL HOURS</b>	<b>16</b>

#### Junior Year

Course Number	Fall Semester Course Description	Credit Hours	Course Number	Spring Semester Course Description	Credit Hours
RSP 202	Introduction to Mechanical Ventilation	3	RSP 206	Intro to Neo/Peds Resp Care	3
RSP 207	Introduction to Critical Care Management	3	RSP 210	Respiratory Internship 3	4
RSP 209	Respiratory Internship 2	4	RSP 308	Respiratory Management & QI	3
RSP 303	Respiratory Education	3	RSP 314	Advanced Mechanical Ventilation	3
	<b>TOTAL HOURS</b>	<b>13</b>		<b>TOTAL HOURS</b>	<b>13</b>

#### Senior Year

Course Number	Fall Semester Course Description	Credit Hours	Course Number	Spring Semester Course Description	Credit Hours
RSP 302	Respiratory Internship 4	4	RSP 403	Respiratory Care Research	3
RSP 304	Advanced Neo/Peds Critical Care	3	RSP 404	Advanced Practicum	4
RSP 307	Advanced Critical Care	4	RSP 407	Clinical Decision Making	3
RSP 401	Introduction to Sleep Disorders	4	RSP 420	Capstone in Respiratory Care	5
	<b>TOTAL HOURS</b>	<b>15</b>		<b>TOTAL HOURS</b>	<b>15</b>

Reviewed: 6/19; 6/20; 6/24; 7/25

Revised: 7/21, 6/23

## STUDENT CURRICULUM GUIDE

### Associate of Applied Science

#### Prerequisite Courses

Course Number	Course Description	Credit Hours
BIOL 257	Intro to Anatomy & Physiology	3
BIOL 259	Intro to Anatomy & Physiology - Lab	3
MAT 120	Applied Professional Math	3
ENL 101	Written Communication	3
COM 112	Oral Communication	3
PSYC 211	Child Development	3
<b>Total Prerequisites Course Hours</b>		<b>18</b>

Year 1

Fall Semester			Spring Semester		
Course Number	Course Description	Cr Hr	Course Number	Course Description	Cr Hr
RESP 100	Respiratory Pharmacology	3	RESP 201	Pathophysiology	3
RESP 101	Patient Assessment/Intro to Resp	4	RESP 209	Clinical Experience II	2
RESP 102	Introduction to Respiratory Skills	3	RESP 211	Procedure & Application	4
RESP 102L	Introduction to Respiratory Skills Lab	1	RESP 212	Pulmonary Diagnostics	3
RESP 104	Clinical Experience 1	1	RESP 201		
Total Fall Semester Hours		12	Total Spring Semester Hours		12

Year 2

Fall Semester			Spring Semester		
Course Number	Course Description	Cr Hr	Course Number	Course Description	Cr Hr
RESP 202	Mechanical Ventilation 1	3	RESP 208	Respiratory Seminar	5
RESP 206	Neonatal/Pediatric Respiratory Care	3	RESP 214	Mechanical Ventilation II	3
RESP 207	Critical Care Management	3	RESP 215	Critical Care Management II	3
RESP 210	Clinical Experience III	3	RESP 216	Clinical Experience IV	2
Total Fall Semester Hours		12	Total Spring Semester Hours		13

Course Descriptions  
Bachelor of Science  
School of Respiratory Care

Note:

**For any course listed in this table, you must be formally accepted into the Respiratory Care Program or receive permission from the Program Director.**

Course Number	Course Title	Cr Hr	Course Description	Pre-Requisites		Co-Requisites
RSP 100	Respiratory Pharmacology	3	Introduces the student to the basic pharmacology of medicines used in respiratory care and physiological implications on the human body.	<ul style="list-style-type: none"> <li>• BSC 227 &amp; 227L</li> <li>• BSC 228 &amp; 228L</li> <li>• BSC 250 &amp; 250L</li> </ul>	Acceptance to Respiratory Program	<ul style="list-style-type: none"> <li>• RSP 101</li> <li>• RSP 102</li> <li>• RSP 102L</li> </ul>
RSP 101	Introduction to Respiratory Care	2	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.	<ul style="list-style-type: none"> <li>• BSC 227 &amp; 227L</li> <li>• BSC 228 &amp; 228L</li> <li>• BSC 250 &amp; 250L</li> </ul>	Acceptance to Respiratory Program	<ul style="list-style-type: none"> <li>• RSP 101</li> <li>• RSP 102</li> <li>• RSP 102L</li> </ul>
RSP 102	Introduction to Respiratory Care Procedures	3	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.	<ul style="list-style-type: none"> <li>• BSC 227 &amp; 227L</li> <li>• BSC 228 &amp; 228L</li> <li>• BSC 250 &amp; 250L</li> </ul>	Acceptance to Respiratory Program	<ul style="list-style-type: none"> <li>• RSP 101</li> <li>• RSP 102</li> <li>• RSP 102L</li> </ul>
RSP 102L	Introduction to Respiratory Care Procedures - Lab	1	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.	<ul style="list-style-type: none"> <li>• BSC 227 &amp; 227L</li> <li>• BSC 228 &amp; 228L</li> <li>• BSC 250 &amp; 250L</li> </ul>	Acceptance to Respiratory Program	<ul style="list-style-type: none"> <li>• RSP 101</li> <li>• RSP 102</li> <li>• RSP 102L</li> </ul>
RSP 201	Pulmonary Pathophysiology	3	Emphasis is placed on the etiology, signs and symptoms, pathology, clinical manifestations, sequelae, and- treatment. The respiratory therapist's role in recognizing and treating pulmonary diseases is highlighted.	Sophomore Level Status <ul style="list-style-type: none"> <li>• BSC 227 &amp; 227L</li> <li>• BSC 228 &amp; 228L</li> <li>• BSC 250 &amp; 250L</li> </ul>	Sophomore Level Status <ul style="list-style-type: none"> <li>• RSP 100</li> <li>• RSP 101</li> <li>• RSP 102</li> <li>• RSP 102L</li> </ul>	Sophomore Level Status <ul style="list-style-type: none"> <li>• RSP 203</li> <li>• RSP 212</li> </ul>
RSP 202	Mechanical Ventilation Technology and Mgt.	3	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.	Junior Level Status <ul style="list-style-type: none"> <li>• BSC 227 &amp; 227L</li> <li>• BSC 228 &amp; 228L</li> <li>• BSC 250 &amp; 250L</li> <li>• RSP 100</li> <li>• RSP 101</li> </ul>	Junior Level Status <ul style="list-style-type: none"> <li>• RSP 102</li> <li>• RSP 102L</li> <li>• RSP 201</li> <li>• RSP 203</li> <li>• RSP 212</li> </ul>	Junior Level Status <ul style="list-style-type: none"> <li>• RSP 207</li> <li>• RSP 209</li> </ul>

RSP 203	Respiratory Internship (1 - 4 hr.)	4	Emphasis is on information gathering from the patient record, physical evaluation of the patient, and basic respiratory interventions	Sophomore Level Status <ul style="list-style-type: none"> <li>• BSC 227 &amp; 227L</li> <li>• BSC 228 &amp; 228L</li> <li>• BSC 250 &amp; 250L</li> <li>• RSP 100</li> </ul>	Sophomore Level Status <ul style="list-style-type: none"> <li>• RSP 101</li> <li>• RSP 102</li> <li>• RSP 102L</li> </ul>	Sophomore Level Status <ul style="list-style-type: none"> <li>• RSP 201</li> <li>• RSP 212</li> </ul>
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Note:

**For any course listed in this table, you must be formally accepted into the Respiratory Care Program or receive permission from the Program Director.**

Course Number	Course Title	Cr Hr	Course Description	Pre-Requisites		Co-Requisite
RSP 206	Neonatal/Pediatric Respiratory (Writing Intensive)	3	Provide knowledge of neonatal/pediatric patient fetal cardiopulmonary development and changes at birth, care methods used, and evaluation of neonatal and pediatric patients are covered.	Junior Level Status <ul style="list-style-type: none"> <li>• BSC 227 &amp; 227L</li> <li>• BSC 228 &amp; 228L</li> <li>• BSC 250 &amp; 250L</li> <li>• RSP 100</li> <li>• RSP 102</li> <li>• RSP 102L</li> </ul>	Junior Level Status <ul style="list-style-type: none"> <li>• RSP 201</li> <li>• RSP 202</li> <li>• RSP 203</li> <li>• RSP 207</li> <li>• RSP 209</li> <li>• RSP 212</li> </ul>	Junior Level Status <ul style="list-style-type: none"> <li>• RSP 210</li> <li>• RSP 303</li> <li>• RSP 308</li> <li>• RSP 314</li> </ul>
RSP 207	Introduction to Critical Care Management	3	Designed to provide the student with knowledge of airway management, Trans tracheal oxygen therapy and aspiration, bronchoscopy, thoracentesis, pleural chest tubes, arterial lines, ABG interpretation, and analysis, transports, and electrocardiogram interpretation	Junior Level Status <ul style="list-style-type: none"> <li>• BSC 227 &amp; 227L</li> <li>• BSC 228 &amp; 228L</li> <li>• BSC 250 &amp; 250L</li> <li>• RSP 100</li> </ul>	Junior Level Status <ul style="list-style-type: none"> <li>• RSP 102</li> <li>• RSP 102L</li> <li>• RSP 201</li> <li>• RSP 203</li> <li>• RSP 212</li> </ul>	Junior Level Status <ul style="list-style-type: none"> <li>• RSP 202</li> <li>• RSP 209</li> </ul>

				<ul style="list-style-type: none"> <li>• RSP 101</li> </ul>		
RSP 209	Respiratory Internship 2	3	Emphasis is on the supervised practice of humidity and aerosol therapy, aerosol drug therapy, lung inflation therapy, and techniques used in electrocardiography	<p>Junior Level Status</p> <ul style="list-style-type: none"> <li>• BSC 227 &amp; 227L</li> <li>• BSC 228 &amp; 228L</li> <li>• BSC 250 &amp; 250L</li> <li>RSP 100</li> <li>• RSP 101</li> </ul>	<p>Junior Level Status</p> <ul style="list-style-type: none"> <li>• RSP 102</li> <li>• RSP 102L</li> <li>• RSP 201</li> <li>• RSP 202</li> <li>• RSP 203</li> </ul>	<p>Junior Level Status</p> <ul style="list-style-type: none"> <li>• RSP 202</li> <li>• RSP 207</li> </ul>
RSP 210	Respiratory Internship III	3	The emphasis is on the supervised practice of arterial blood gas sampling and analysis, arterial line management, chest tube management, ECGs observation of hemodynamic measurement and monitoring, IABP management.	<p>Junior Level Status</p> <ul style="list-style-type: none"> <li>• BSC 227 &amp; 227L</li> <li>• BSC 228 &amp; 228L</li> <li>• BSC 250 &amp; 250L</li> <li>RSP 100</li> <li>• RSP 101</li> <li>• RSP 102</li> </ul>	<p>Junior Level Status</p> <ul style="list-style-type: none"> <li>• RSP 102L</li> <li>• RSP 201</li> <li>• RSP 202</li> <li>• RSP 203</li> <li>• RSP 209</li> </ul>	<p>Junior Level Status</p> <ul style="list-style-type: none"> <li>• RSP 303</li> <li>• RSP 309</li> </ul>

Note:

For any course listed in this table, you must be formally accepted into the Respiratory Care Program or receive permission from the Program Director.

Course Number	Course Title	Cr Hr	Course Description	Pre-Requisites		Co-Requisite
RSP 212	Acute/Chronic Pulmonary Management	3	Emphasis is placed on pulmonary function testing/interpretation and care of a patient with long-term pulmonary disability requiring home care and rehabilitation	Junior Level Status <ul style="list-style-type: none"> <li>BSC 227 &amp; 227L</li> <li>BSC 228 &amp; 228L</li> <li>BSC 250 &amp; 250L</li> <li>RSP 100</li> <li>RSP 101</li> </ul>	Junior Level Status <ul style="list-style-type: none"> <li>RSP 102</li> <li>RSP 102L</li> <li>RSP 201</li> <li>RSP 202</li> <li>RSP 203</li> </ul>	Junior Level Status <ul style="list-style-type: none"> <li>RSP 201</li> <li>RSP 203</li> </ul>
RSP 302	Respiratory Internship IV	2	Emphasis is on cardiopulmonary assessment and treatment of trauma, post-surgical, cardiac, renal, neonatal, and pediatric patients with the refinement of monitoring procedures and interpretation of data.	Senior Level Status <ul style="list-style-type: none"> <li>BSC 227 &amp; 227L</li> <li>BSC 228 &amp; 228L</li> <li>BSC 250 &amp; 250L</li> <li>RSP 100</li> <li>RSP 101</li> <li>RSP 102</li> <li>RSP 102L</li> <li>RSP 201</li> <li>RSP 202</li> </ul>	Senior Level Status <ul style="list-style-type: none"> <li>RSP 203</li> <li>RSP 206</li> <li>RSP 207</li> <li>RSP 209</li> <li>RSP 210</li> <li>RSP 212</li> <li>RSP 303</li> <li>RSP 308</li> <li>RSP 314</li> </ul>	Senior Level Status <ul style="list-style-type: none"> <li>RSP 304</li> <li>RSP 307</li> <li>RSP 401</li> </ul>
RSP 303	Clinical Respiratory Education	3	Designed as an introduction to clinical teaching in a respiratory care program.  Emphasis is on instructional and evaluation strategies and the development of performance objectives	Junior Level Status <ul style="list-style-type: none"> <li>BSC 227 &amp; 227L</li> </ul>	Junior Level Status <ul style="list-style-type: none"> <li>RSP 203</li> <li>RSP 206</li> </ul>	Junior Level Status <ul style="list-style-type: none"> <li>RSP 206</li> <li>RSP 210</li> <li>RSP 303</li> <li>RSP 308</li> </ul>



				<ul style="list-style-type: none"> <li>• BSC 228 &amp; 228L</li> <li>• BSC 250 &amp; 250L</li> <li>• RSP 100</li> <li>• RSP 101</li> <li>• RSP 102</li> <li>• RSP 102L</li> <li>• RSP 201</li> <li>• RSP 202</li> </ul>	<ul style="list-style-type: none"> <li>• RSP 207</li> <li>• RSP 209</li> <li>• RSP 210</li> <li>• RSP 212</li> <li>• RSP 303</li> <li>• RSP 308</li> <li>• RSP 314</li> </ul>	
RSP 304	Advanced Neonatal and Pediatric	3	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.	Senior Level Status <ul style="list-style-type: none"> <li>• BSC 227 &amp; 227L</li> <li>• BSC 228 &amp; 228L</li> <li>• BSC 250 &amp; 250L</li> <li>• RSP 100</li> <li>• RSP 101</li> <li>• RSP 102</li> <li>• RSP 102L</li> <li>• RSP 201</li> <li>• RSP 202</li> </ul>	Senior Level Status <ul style="list-style-type: none"> <li>• RSP 203</li> <li>• RSP 206</li> <li>• RSP 207</li> <li>• RSP 209</li> <li>• RSP 210</li> <li>• RSP 212</li> <li>• RSP 303</li> <li>• RSP 308</li> <li>• RSP 314</li> </ul>	Senior Level Status <ul style="list-style-type: none"> <li>• RSP 302</li> <li>• RSP 307</li> <li>• RSP 401</li> </ul>

Note:

For any course listed in this table, you must be formally accepted into the Respiratory Care Program or receive permission from the Program Director.

Course Number	Course Title	Cr Hr	Course Description	Pre-Requisites		Co-Requisite
RSP 307	Advanced Techniques in Adult C	4	Emphasis is on current respiratory care procedures for critically ill adult patients with an exploration into newer techniques	Senior Level Status <ul style="list-style-type: none"> <li>BSC 227 &amp; 227L</li> <li>BSC 228 &amp; 228L</li> <li>BSC 250 &amp; 250L</li> <li>RSP 100</li> <li>RSP 101</li> <li>RSP 102</li> <li>RSP 102L</li> <li>RSP 201</li> <li>RSP 202</li> </ul>	Senior Level Status <ul style="list-style-type: none"> <li>RSP 203</li> <li>RSP 206</li> <li>RSP 207</li> <li>RSP 208</li> <li>RSP 209</li> <li>RSP 210</li> <li>RSP 212</li> <li>RSP 303</li> <li>RSP 308</li> </ul>	Senior Level Status <ul style="list-style-type: none"> <li>RSP 302</li> <li>RSP 304</li> <li>RSP 401</li> </ul>
RSP 308	Respiratory Management and C	3	This course introduces the student to basic management principles of a respiratory department.  Discussion includes scope of management, quality issues, budgeting issues, and evaluation and application of management concepts.	Junior Level Status <ul style="list-style-type: none"> <li>BSC 227 &amp; 227L</li> <li>BSC 228 &amp; 228L</li> <li>BSC 250 &amp; 250L</li> <li>RSP 100</li> <li>RSP 101</li> <li>RSP 102</li> </ul>	Junior Level Status <ul style="list-style-type: none"> <li>RSP 102L</li> <li>RSP 201</li> <li>RSP 202</li> <li>RSP 203</li> <li>RSP 207</li> <li>RSP 209</li> <li>RSP 212</li> </ul>	Junior Level Status <ul style="list-style-type: none"> <li>RSP 206</li> <li>RSP 210</li> <li>RSP 303</li> <li>RSP 314</li> </ul>
RSP 314	Advanced Mechanical Ventilatio	3	Advanced theory and application of mechanical ventilation. Study of various mechanical ventilators and artificial airways, with major emphasis on all aspects of the management of the patient-ventilator system	Junior Level Status <ul style="list-style-type: none"> <li>BSC 227 &amp; 227L</li> </ul>	Junior Level Status <ul style="list-style-type: none"> <li>RSP 102L</li> </ul>	Junior Level Status <ul style="list-style-type: none"> <li>RSP 206</li> <li>RSP 210</li> </ul>

				<ul style="list-style-type: none"> <li>• BSC 228 &amp; 228L</li> <li>• BSC 250 &amp; 250L</li> <li>• RSP 100</li> <li>• RSP 101</li> <li>• RSP 102</li> </ul>	<ul style="list-style-type: none"> <li>• RSP 201</li> <li>• RSP 202</li> <li>• RSP 203</li> <li>• RSP 207</li> <li>• RSP 209</li> <li>• RSP 212</li> </ul>	<ul style="list-style-type: none"> <li>• RSP 303</li> <li>• RSP 308</li> </ul>
RSP 401	Introduction to Sleep Disorders	4	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.	Senior Level Status <ul style="list-style-type: none"> <li>• BSC 227 &amp; 227L</li> <li>• BSC 228 &amp; 228L</li> <li>• BSC 250 &amp; 250L</li> <li>• RSP 100</li> <li>• RSP 101</li> <li>• RSP 102</li> <li>• RSP 102L</li> <li>• RSP 201</li> <li>• RSP 202</li> </ul>	Senior Level Status <ul style="list-style-type: none"> <li>• RSP 203</li> <li>• RSP 206</li> <li>• RSP 207</li> <li>• RSP 209</li> <li>• RSP 210</li> <li>• RSP 212</li> <li>• RSP 303</li> <li>• RSP 308</li> <li>• RSP 314</li> </ul>	Senior Level Status <ul style="list-style-type: none"> <li>• RSP 302</li> <li>• RSP 304</li> <li>• RSP 307</li> </ul>

Note:

**For any course listed in this table, you must be formally accepted into the Respiratory Care Program or receive permission from the Program Director.**

Course Number	Course Title	Cr Hr	Course Description	Pre-Requisites		Co-Requisite
RSP 402	Issues in Respiratory Management	3	Designed to examine respiratory care in rural America. This course will address the key issues confronting rural respiratory healthcare today and examine the causes and develop solutions to these issues.	Acceptance in the Degree Advancement Program		N/A
RSP 403	Respiratory Care Research	3	Designed to provide the student with knowledge about survey of research problems, methods, designs utilized in respiratory care, with emphasis on data presentation and analysis.	Senior Level Status	Senior Level Status	Senior Level Status

				<ul style="list-style-type: none"> <li>• BSC 227 &amp; 227L</li> <li>• BSC 228 &amp; 228L</li> <li>• BSC 250 &amp; 250L</li> <li>• RSP 100</li> <li>• RSP 101</li> <li>• RSP 102</li> <li>• RSP 102L</li> <li>• RSP 201</li> <li>• RSP 202</li> <li>• RSP 203</li> <li>• RSP 206</li> </ul>	<ul style="list-style-type: none"> <li>• RSP 207</li> <li>• RSP 209</li> <li>• RSP 210</li> <li>• RSP 212</li> <li>• RSP 302</li> <li>• RSP 303</li> <li>• RSP 304</li> <li>• RSP 307</li> <li>• RSP 308</li> <li>• RSP 314</li> </ul>	<ul style="list-style-type: none"> <li>• RSP 403</li> <li>• RSP 407</li> <li>• RSP 420</li> </ul>
RSP 404	Advanced Practicum 4	4	This is a 4-hour course where the emphasis is placed on advanced respiratory techniques and management of clients across the life span	Senior Level Status <ul style="list-style-type: none"> <li>• BSC 227 &amp; 227L</li> <li>• BSC 228 &amp; 228L</li> <li>• BSC 250 &amp; 250L</li> <li>• RSP 100</li> <li>• RSP 101</li> <li>• RSP 102</li> <li>• RSP 102L</li> <li>• RSP 201</li> <li>• RSP 202</li> <li>• RSP 203</li> <li>• RSP 206</li> </ul>	Senior Level Status <ul style="list-style-type: none"> <li>• RSP 207</li> <li>• RSP 209</li> <li>• RSP 210</li> <li>• RSP 212</li> <li>• RSP 302</li> <li>• RSP 303</li> <li>• RSP 304</li> <li>• RSP 307</li> <li>• RSP 308</li> <li>• RSP 314</li> <li>• RSP 401</li> </ul>	Senior Level Status <ul style="list-style-type: none"> <li>• RSP 403</li> <li>• RSP 407</li> <li>• RSP 420</li> </ul>

Note:

For any course listed in this table, you must be formally accepted into the Respiratory Care Program or receive permission from the Program Director.

Course Number	Course Title	Cr Hr	Course Description	Pre-Requisites		Co-Requisite
RSP 407	Clinical Decision Making	3	The course focuses on gathering appropriate clinical information to make evidence-based decisions in the treatment of respiratory care diseases.	Senior Level Status <ul style="list-style-type: none"> <li>• BSC 227 &amp; 227L</li> <li>• BSC 228 &amp; 228L</li> <li>• BSC 250 &amp; 250L</li> <li>• RSP 100</li> <li>• RSP 101</li> <li>• RSP 102</li> <li>• RSP 102L</li> <li>• RSP 201</li> <li>• RSP 202</li> <li>• RSP 203</li> <li>• RSP 206</li> </ul>	Senior Level Status <ul style="list-style-type: none"> <li>• RSP 207</li> <li>• RSP 209</li> <li>• RSP 210</li> <li>• RSP 212</li> <li>• RSP 302</li> <li>• RSP 303</li> <li>• RSP 304</li> <li>• RSP 307</li> <li>• RSP 308</li> <li>• RSP 314</li> <li>• RSP 401</li> </ul>	Senior Level Status <ul style="list-style-type: none"> <li>• RSP 403</li> <li>• RSP 404</li> <li>• RSP 407</li> <li>• RSP 420</li> </ul>
RSP 420	Capstone in Respiratory Care	5	Role synthesis practicum incorporating provision of care, coordinator of care, member of the profession and Leadership roles.	Senior Level Status <ul style="list-style-type: none"> <li>• BSC 227 &amp; 227L</li> <li>• BSC 228 &amp; 228L</li> <li>• BSC 250 &amp; 250L</li> <li>• RSP 100</li> <li>• RSP 101</li> <li>• RSP 102</li> </ul>	Senior Level Status <ul style="list-style-type: none"> <li>• RSP 207</li> <li>• RSP 209</li> <li>• RSP 210</li> <li>• RSP 212</li> <li>• RSP 302</li> <li>• RSP 303</li> <li>• RSP 304</li> <li>• RSP 307</li> <li>• RSP 308</li> <li>• RSP 314</li> <li>• RSP 401</li> </ul>	Senior Level Status <ul style="list-style-type: none"> <li>• RSP 403</li> <li>• RSP 404</li> <li>• RSP 407</li> </ul>

				<ul style="list-style-type: none"> <li>• RSP 102L</li> <li>• RSP 201</li> <li>• RSP 202</li> <li>• RSP 203</li> <li>• RSP 206</li> </ul>		
RSP 480	Special Topics	1-4	Study of topics not available in other course	Permission from Program Director	Permission from Program Director	N/A
RSP 481	Special Topics	1-4	Study of topics not available in other course	Permission from Program Director	Permission from Program Director	N/A
RSP 482	Special Topics	1-4	Study of topics not available in other course	Permission from Program Director	Permission from Program Director	N/A
RSP 483	Special Topics	1-4	Study of topics not available in other course	Permission from Program Director	Permission from Program Director	N/A
RSP 485	Special Topics (1-4; 1-4; 1-4)	4	Study of topics not available in other course	Permission from Program Director	Permission from Program Director	N/A
RSP 486	Independent Study (1-4)	4	The course will consist of directed and independent reading, directed and independent research, problem reports, or tutorials. Will the student to complete individualized learning respiratory care	Permission from Program Director	Permission from Program Director	N/A
RSP 487	Independent Study	1-4	The course will consist of directed and independent reading, directed and independent research, problem reports, or tutorials. Will the student to complete individualized learning respiratory care	Permission from Program Director	Permission from Program Director	N/A
RSP 488	Independent Study	1-4	The course will consist of directed and independent reading, directed and independent research, problem reports, or tutorials. Will the student to complete individualized learning respiratory care	Permission from Program Director	Permission from Program Director	N/A

Revised: 7/21

Reviewed: 4/22, 6/23, 7/25

# ASSOCIATE OF APPLIED SCIENCE

Note:

**For any course listed in this table, you must be formally accepted into the Associate of Applied Science Respiratory Care Program or receive permission from the Program Director.**

Course Number	Course Title	Cr Hr	Course Description	Pre Requisites	Co Requisites
RESP 100	Respiratory Pharmacology	3	<p>This course introduces the student to the study of pharmacological principles related to treating patients with cardiopulmonary disease.</p> <p>This course includes principles of drug action, the basic methods of drug administration, standard drug calculations, and the effects of drugs on body systems.</p> <p>Inhaled bronco-active aerosols and other agents in cardiopulmonary patient care are discussed</p>	Admission to the SMMC MCTC Respiratory Program	RESP 101 RESP 102 RESP 102L RESP 203
RESP 101	Introduction to Respiratory Care Patient Assessment	3	<p>This course is an introduction to respiratory care as a profession.</p> <p>Topics discussed include the history of respiratory care and professional organizations, the role of the respiratory therapist as a member of the healthcare team, medical ethics, taking and recording the patient's vital signs, proper body mechanics, emphasis on cardiopulmonary assessment of the respiratory patient, infection control, and cardiopulmonary resuscitation (CPR).</p>	Admission to the SMMC MCTC Respiratory Program	RESP 100 RESP 102 RESP 102L RESP 203
RESP 102	Introduction to Respiratory Care Skills	3	<p>This course introduces the student to therapeutic procedures used in respiratory care.</p> <p>The proper administration of medical gases, humidity therapy, and aerosol therapy with emphasis on the safe handling of medical gases and safety in administration are included</p>	Admission to the SMMC MCTC Respiratory Program	RESP 100 RESP 101 RESP 102L RESP 203
RESP 102L	Introduction to Respiratory Care - Lab	1	<p>This laboratory course will provide the student with hands-on practice and manipulation of essential respiratory equipment and the training of assessment skills, including oxygen therapy equipment, humidification devices, aerosol therapy devices, airway clearance equipment, and management of secretions.</p> <p>Handwashing and infection control are practiced</p>	Admission to the SMMC MCTC Respiratory Program	RESP 100 RESP 101 RESP 102 RESP 203
RESP 104	Clinical Experience I	1	<p>This course introduces the student to respiratory care practice in the hospital setting.</p> <p>This clinical experience includes the development of skills such as basic therapeutics, patient assessment, medical record review, safety practices, patient interaction, and communication skills.</p> <p>Emphasis is placed on the promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care</p>	Admission to the SMMC MCTC Respiratory Program	RESP 100 RESP 101 RESP 102 RESP 102L
Course	Course Title	Cr	Course Description	Pre	Co

Number		Hr		Requisites	Requisites
RESP 201	Pulmonary Pathophysiology	3	<p>This course is a comprehensive study of the etiology, signs and symptoms, diagnosis, pathogenesis, pathophysiology, treatment, and prognosis of various pulmonary pathologies.</p> <p>The role of a respiratory therapist in recognizing and treating pulmonary diseases will be emphasized</p>	RESP 100 RESP 101 RESP 102 RESP 102L RESP 203	RESP 209 RESP 212
RESP 202	Mechanical Ventilation 1	3	<p>This course introduces mechanical ventilation techniques and ventilator terminology.</p> <p>This course will cover information necessary to understand the essential functions of a life support ventilator,</p> <p>Proper monitoring procedures and the ability to solve clinical problems relating to mechanical ventilation will be emphasized. Lab included</p>	RESP 100 RESP 101 RESP 102 RESP 102L RESP 203 RESP 209 RESP 212	RESP 206 RESP 207 RESP 210
RESP 203	Clinical Experience 1	2	<p>This course introduces the student to Respiratory Therapy practice in the hospital setting.</p> <p>This clinical experience Includes the development of skills such as basic therapeutics, patient assessment, medical record review, safety practices, patient interaction, and communication.</p> <p>Emphasis is placed on the promotion of evidence-based practice using established clinical practice guidelines and published research for its relevance to patient care.</p>	Admission to the  SMMC MCTC  Respiratory Program	RESP 100 RESP 101 RESP 102 RESP 102L
RESP 206	Neonatal/Pediatric Respiratory Care	3	<p>This course provides a comprehensive overview of pediatric and neonatal respiratory care.</p> <p>Special considerations of respiratory care practice that are unique to pediatrics and neonatology will be discussed.</p> <p>Topics include pediatric anatomy and physiology, fetal development, clinical assessment, oxygen therapy, airway management, mechanical ventilation, resuscitation, cardiopulmonary pathophysiology, and disorders specific to this specialty profession within the respiratory care</p>	RESP 100 RESP 101 RESP 102 RESP 102L RESP 201 RESP 203 RESP 209 RESP 212	RESP 202 RESP 207 RESP 210
RESP 207	Critical Care Management 1	3	<p>This course covers in detail the advanced skills necessary to manage intensive care patients.</p> <p>Students will learn proper methods and techniques to evaluate, monitor, and use Respiratory Therapy protocols to provide advanced management therapies based on the pathophysiology of the critically ill patient.</p> <p>The student will be presented with knowledge of oxygen and carbon dioxide transport, airway management, chest drainage systems, cardiac function, and interventions, obtaining blood from arterial lines and radial artery punctures, and ABG and electrocardiogram interpretation skills will be taught</p>	RESP 100 RESP 101 RESP 102 RESP 102L RESP 201 RESP 203 RESP 209 RESP 212	RESP 202 RESP 206 RESP 210
Course	Course Title	Cr	Course Description	Pre	Co



Number		Hr		Requisites	Requisites
RESP 208	Respiratory Seminar	5	<p>This course incorporates discussions of critical questions and contemporary issues in the current respiratory care environment</p> <p>The goal is to facilitate a successful transition from student to graduate respiratory care professional.</p> <p>The student will demonstrate the value of lifelong learning and provide evidence of adequate preparation for assuming the role of a respiratory care professional</p>	RESP 100 RESP 101 RESP 102 RESP 102L RESP 104 RESP 201 RESP 202 RESP 206 RESP 207 RESP 209 RESP 210 RESP 212	RESP 214 RESP 215 RESP 216
RESP 209	Clinical Experience 2	2	<p>This course provides clinical experience in treatment procedures continued from Clinical Practice 1 with greater emphasis on respiratory procedures previously practiced with greater emphasis on independence.</p> <p>Specialty rotations will be introduced to respiratory care, critical care, aerosol therapy, and various pulmonary function tests.</p> <p>Students will gain further experience with bronchial hygiene therapies, including postural drainage and chest percussion</p>	RESP 100 RESP 101 RESP 102 RESP 102L RESP 203	RESP 201 RESP 212
RESP 210	Clinical Experience 3	4	<p>This course provides students with a rotation for arterial blood gas sampling and analysis.</p> <p>The student will gain clinical experience in adult mechanical ventilation monitoring ventilator monitoring including mode, mechanical/spontaneous tidal volumes, FiO<sub>2</sub>, PEEP/CPAP, flow rate, minute volume, PIP, I:E ratio, compliance, airway resistance, MAP, all alarm settings and airway management in the critical care setting, as well as the continued performance of the basic respiratory care skills.</p>	RESP 100 RESP 101 RESP 102 RESP 102L RESP 201 RESP 203 RESP 209 RESP 212	RESP 202 RESP 206 RESP 207
RESP 211	Procedures & Application	4	<p>This course includes in-depth coverage of respiratory therapeutic procedures and/or modalities that student respiratory therapists are likely to encounter.</p> <p>Building off of basic principles, this course helps the student apply theory to practice promoting critical thinking and problem solving skills related to the ever changing patient care area</p>	RESP 100 RESP 102 RESP 102L RESP 104	RESP 201 RESP 209 RESP 212
RESP 212	Pulmonary Diagnostics		<p>This course will introduce the student to the principles and techniques of pulmonary function testing.</p> <p>The cardiovascular and pulmonary function testing of patients will be covered with an emphasis on the evaluation and interpretation of the results of the tests. This course will cover an introduction to integrating test results with a clinical picture of the patient and emphasizing therapeutics and principles</p>	RESP 100 RESP 101 RESP 102 RESP 102L RESP 203	RESP 201, RESP 209

Course Number	Course Title	Cr Hr	Course Description	Pre Requisites	Co Requisites
RESP 214	Mechanical Ventilation II	3	<p>The course emphasizes applying various ventilation techniques and concepts to different patient disease state seen in critical care areas.</p> <p>The student develops the ability to use waveforms and patient values as some of the tools in the assessment and management of respiratory care patients.</p>	RESP 100 RESP 101 RESP 102 RESP 102L RESP 201 RESP 202 RESP 203 RESP 206 RESP 207 RESP 209 RESP 210 RESP 212	RESP 215 RESP 216 RESP 220
RESP 215	Critical Care Management II	3	<p>Designed to provide the student with knowledge of oxygen and carbon dioxide transport, airway management, chest drainage systems, cardiac function, and interventions, obtaining blood from arterial lines and radial artery punctures, and ABG and electrocardiogram interpretation skills will be taught.</p> <p>Orientation to patient care in the I.C.U. setting is also covered.</p>	RESP 100 RESP 101 RESP 102 RESP 102L RESP 201 RESP 202 RESP 203 RESP 206 RESP 207 RESP 209 RESP 210 RESP 212	RESP 214 RESP 216 RESP 220
RESP 216	Clinical Experience IV	2	<p>Respiratory care treatment procedures are continued with greater emphasis on functioning with minimal supervision and improving proficiency and refining the student's skills in adult general and critical care areas. Experience in non-acute health care settings is included.</p> <p>Specialty rotations are continued.</p>	RESP 100, RESP 101 RESP 102 RESP 102L RESP 201 RESP 202 RESP 203 RESP 206 RESP 207 RESP 209 RESP 210 RESP 212	RESP 214 RESP 215

## **FACULTY**

Dr. Joey Trader, Ed.D., MSN, RN, CNE  
Vice President of Schools of Nursing and Health Professions  
St. Mary's/Marshall University Cooperative ASN, Huntington, WV  
Marshall University, Huntington, WV  
Liberty University, Lynchburg, VA

Chuck Zuhars, M.S. Ed., RRT  
Director – School of Respiratory Care  
Program Director – Bachelor Degree Program  
Shawnee State University, Portsmouth, OH  
Morehead State University, Morehead, KY  
University of Tennessee, Knoxville, TN

Christopher Henderson, RRT, B.A., MS SL  
Program Director – Associate Degree Program  
University of Charleston, Charleston, WV  
WVU Institute of Technology, Montgomery, WV

Dr. Keith Terry, Ed.D., MS, RN, RRT  
Director of Clinical Education – Bachelor Degree Program  
St. Mary's School of Nursing, Huntington, WV  
Marshall University, Huntington, WV  
Mountain State University, Beckley, WV  
Shawnee State University, Portsmouth, OH  
Capella University, Minneapolis, MN

Ryan Spurlock, RRT, BSRT, MS Ed  
St. Mary's School of Respiratory Care, Huntington, WV  
Marshall University, Huntington, WV

## **STAFF**

CFE Administrative Secretary	Paula Cremeans	304-526-1426
CFE Admissions Coordinator	Melba Curry	304-526-1423
CFE Admissions Coordinator	Leah Chapman	304-399-7110

## DISCLOSURE FORM

### PROJECTED EXPENSES

The following projected expenses apply to School Of Respiratory Care courses only at the CFE.

#### School of Respiratory Care

<b>Fall Semester Sophomore Year</b>	<b>Projected Cost</b>	<b>Spring Semester Sophomore Year</b>	<b>Projected Cost</b>
Tuition – 10 Credit hours	\$3,400.00	Tuition – 10 Credit hours	\$3,400.00
Projected Books & Supplies	\$1,300.00	Projected Books & Supplies	\$500.00
Lab Kit & Lab Fee	\$300.00	Lab Fee	\$100.00
Uniform	\$300.00		
Background Check Drug Screen	\$100.00		
<b>Total</b>	<b>\$5,400.00</b>	<b>Total</b>	<b>\$4,000.00</b>

<b>Fall Semester Junior Year</b>	<b>Projected Cost</b>	<b>Spring Semester Junior Year</b>	<b>Projected Cost</b>
Tuition – 13 Credit hours	\$4,080.00	Tuition – 13 Credit hours	\$4,080.00
Projected Books/Supplies	\$500.00	Projected Books/Supplies	\$500.00
Lab Fee	\$100.00	Lab Fee	\$100.00
<b>Total</b>	<b>\$4,680.00</b>	<b>Total</b>	<b>\$4,680.00</b>

<b>Fall Semester Senior Year</b>	<b>Projected Cost</b>	<b>Spring Semester Senior Year</b>	<b>Projected Cost</b>
Tuition – 15 Credit hours	\$4,080.00	Tuition – 15 Credit hours	\$4,080.00
Projected Books/Supplies	\$1,000.00	Projected Books/Supplies	\$1,000.00
Lab Fee	\$100.00	Lab Fee	\$100.00
		Graduation Fee	\$100.00
<b>Total</b>	<b>\$5,180.00</b>	<b>Total</b>	<b>\$5,280.00</b>

The St. Mary's/Marshall University Co-Operative School of Respiratory Care is accredited by the Commission on Accreditation for Respiratory Care ([www.coarc.com](http://www.coarc.com))

Program outcomes may be obtained by going to [www.coarc.com](http://www.coarc.com) and clicking on the link program outcomes

Commission on Accreditation for Respiratory Care  
264 Precision Road  
Telford, TN 37690  
(817) 283-2835

Despite any policy to the contrary, for any students using U.S. Department of Veterans Affairs (VA) Post 9/11 G.I. Bill® (Ch. 33) or Vocational Rehabilitation and Employment (Ch. 31) benefits, while payment to the institution is pending from the VA, we will not:

- Prevent their enrollment.
- Assess a late penalty fee
- Require they secure alternative or additional funding
- Deny their access to any resources (access to classes, libraries, or other institutional facilities) available to other students who have satisfied their tuition and fee bills to the institution.

However, to qualify for this provision, such students may be required to:

- Produce the VA's Certificate of Eligibility by the first day of class;
- Provide written request to be certified.
- Provide additional information needed to properly certify the enrollment as described in other institutional policies (see our VA School Certifying Official for all requirements).

# **SCHOOL OF MEDICAL IMAGING**

## PROGRAM OVERVIEW

### PROGRAM OVERVIEW

St. Mary's School of Medical Imaging (SOMI) was started in 1964. It is a hospital-based educational program consisting of 36 months of competency-based clinical and didactic instruction to prepare graduates for entry level employment as a radiographer, and to sit for the American Registry of Radiologic Technologist (ARRT) certification examination upon graduation. The School of Medical Imaging is a cooperative baccalaureate program with Marshall University and a cooperative agreement with Mountwest community and Community and Technical College.

St. Mary's School of Medical Imaging offers two different degree pathways.

Students can choose a **BS degree through Marshall University** and will be granted a Bachelor of Science in Medical Imaging degree once the applicant has fulfilled all requirements from the School of Medical Imaging, which is designed to be completed in 36 months. Students may also choose an **AAS degree through Mountwest Community and Technical College (MCTC)** and will be granted an Associate of Applied Science degree once the applicant has fulfilled all requirements from the School of Medical Imaging, which is designed to be completed in 24 months. Applicants must specify which degree they wish to pursue when making an application to the program. Both programs are selective in their admission practices and can only offer a limited number of spaces to applicants each year.

Radiography is a multi-dimensional career that includes digital radiography, trauma radiography and fluoroscopy. Radiographers have many advanced imaging opportunities available including computed tomography, magnetic resonance imaging and cardiovascular intervention radiography.

The SOMI is accredited by the Joint Review Committee on Education in Radiography (JRCERT), and recognized by the West Virginia Board of Examiners of Radiologic Technologists. Radiography Graduates of the program are eligible to take the entry-level American Registry of Radiologic Technologists (ARRT) Radiography Students will also be didactically prepared for an advanced practice modality in imaging. Radiography Graduates will have three years after completing the program to sit for the Primary certification exam; however, post-primary certification exams (advanced imaging) clinical competency must be dated within 24 months of submitting an application. Senior students will be documenting post-primary competencies, students who enter the program must complete all didactic and clinical requirements including general education requirements within three years (thirty-six months) of entering the SOMI portion of the program (sophomore MU year).

The program is composed of two major components; a clinical component and an academic (classroom) component. Each component is designed to complement the other so that procedures taught in the classroom are performed under supervision in the clinical setting at that time. Each component is discussed separately in their respective sections.

### SCHOOL OF MEDICAL IMAGING MISSION STATEMENT

The mission of St. Mary's School of Medical Imaging is to prepare qualified graduates in the area of imaging sciences through current educational methodologies. The faculty, in collaboration with internal and external groups, will foster the development of a learning environment that is responsive to local and national trends in health care to produce multi-competent medical imaging professionals.

Revised 5/13, Reviewed annually.

## PROGRAM PHILOSOPHY

The faculty of St. Mary's School of Medical Imaging believes that medical imaging is a unique combination of art and science based on the desire to meet specific health care needs of the community. The focus of medical imaging is to provide optimal results with the highest quality of patient care. The achievement of this goal requires the application of the physical and biological sciences coupled with effective communication and interaction skills.

We believe that learning is an end product of education. We believe that motivation, readiness, interest and perseverance are essential to effective learning. We also believe that learning occurs best in an atmosphere built on a cooperative teacher-student relationship.

We believe that medical imaging education is a planned program for the guidance of students in acquiring the knowledge and skills that will prepare them for entry level employment in the various fields of medical imaging. We believe that learning does not stop at graduation and the continuing education is an integral part of their professional development.

With this in mind, it is the responsibility of the faculty to select, plan, organize, implement and evaluate educational experiences for the students in a progressive manner that gives the students direction and allows for individual differences. In doing so, it is the responsibility of the student to cooperate with faculty in all programmatic policies and procedures and to fully cooperate in group activities. Only then can this educational program foster a cooperative environment that is conducive to student learning.  
Revised 5/13, 7/14, Reviewed annually

## SCHOOL OF MEDICAL IMAGING GOAL

To assure that St. Mary's Medical Center School of Medical Imaging is effective in providing the highest quality educational opportunities to students as set forth in the Standards of an Educational Program in Radiography by the Joint Review Committee on Education in Radiography, the SOMI has developed an Assessment Plan based on the following goals. The Assessment Plan and goals are evaluated on an annual basis and are published in an annual report to the Advisory Committee members. Applicants/Students interested in reviewing the program's Assessment Plan or Annual Report should contact the Chair.



## Radiography Goals and Student Learning Outcomes

- I. The program will graduate clinically competent imaging professionals to meet community healthcare needs
  - a. Student will demonstrate technical proficiency
  - b. Students will practice ALARA principles
- II. Students/graduates will be effective communicators
  - a. Students will demonstrate communication fluency by engaging in diverse perspectives
  - b. Students will demonstrate written skills
- III. Students/graduate will model professionalism
  - a. Students will demonstrate a set of cognitive, affective and behavioral skills and characteristics that support effective and appropriate interaction in a variety of cultural contexts
  - b. Students will demonstrate professional behavior in the clinical arena
- IV. Students/graduates are effective at critical thinking.
  - a. Students will demonstrate analytical inquiry through practical approaches to problem solving
  - b. Students will demonstrate critical thinking skills in the use of information resources

Revised: 3/2004; 6/2005; 8/2007; 3/2010; 8/2012, 5/13, 1/14, 5/16, 7/17, 6/19, 7/21

Reviewed: 8/15, 5/16, 7/2017, 6/18, 6/20, 7/25

## APPLICATION PROCESS

Thank you for your interest in St. Mary's Medical Center/MU School of Medical Imaging. Radiography is a very exciting and dynamic field that offers a wonderful blend of technology and patient interaction. The field also offers many career advancement opportunities in the areas of CT, MRI, mammography, ultrasound, nuclear medicine, radiation oncology and cardiovascular imaging.

St. Mary's School of Medical Imaging offers two different degree pathways.

Students can choose a **BS degree through Marshall University** and will be granted a Bachelor of Science in Medical Imaging degree once the applicant has fulfilled all requirements from the School of Medical Imaging, which is designed to be completed in 36 months. Students may also choose an **AAS degree through Mountwest Community and Technical College (MCTC)** and will be granted an Associate of Applied Science degree once the applicant has fulfilled all requirements from the School of Medical Imaging, which is designed to be completed in 24 months. Applicants must specify which degree they wish to pursue when making an application to the program. Both programs are selective in their admission practices and can only offer a limited number of spaces to applicants each year.

Please be advised that the radiography program is selective in its admission practices and can only offer a limited number of spaces to applicants each year. Acceptance into the program is contingent upon a negative drug screening and a clear background check before the start of the first semester. The program reserves the right to request random drug screenings after admittance.

Note: students interested in the sonography program should also look at the sonography admission process link located on the program web page <https://www.st-marys.org/careers-and-education/school-of-medical-imaging/sonography/>

There is a \$30 non-refundable application fee. We accept applications from January 1 to May 5 of each year. The application process must be completed by May 15<sup>th</sup> of the year you are applying for admission.

Again, thank you for your interest in the program.

Download Application

<https://www.st-marys.org/careers-and-education/school-of-medical-imaging/application-procedures>

Technical Standards form

<https://www.st-marys.org/careers-and-education/school-of-medical-imaging/application-procedures>

Students who wish to pursue a BS degree must be accepted into the **Marshall University College of Health Professions (COHP)**. Students who wish to pursue a AAS degree from **Mountwest Community and Technical College (MCTC)** must meet with an Advisor to schedule prerequisite courses. This does not guarantee acceptance into the SOMI. *Separate* application is made to SMMC SOMI between January 1 ~~and May 5<sup>th</sup>~~ May 15<sup>th</sup> of each year.

Applications along with a Technical Standards Declaration (see Technical Standards below) may be downloaded and submitted electronically to Deborah.Moore@st-marys.org . The application fee can be paid by credit card by contacting the St. Mary's Accounting Department at 304.526.8932

Alternatively, applications and the fee in the form of check or money order can be mailed to:

St Mary's Medical Center School of Medical Imaging  
2900 First Avenue  
Huntington, WV 25701

In addition to the application and technical standards form, we require a copy of high school transcripts and all college transcripts. Transcripts may be delivered electronically to [Deborah.Moore@st-marys.org](mailto:Deborah.Moore@st-marys.org) or mailed. We recommend requesting electronic delivery.

In addition to transcripts we require verification of ACT scores. A minimum ACT score of 19 on composite, math and science will improve an applicant's chances of being accepted into the program. Additional points will be given to MCTC students who take the ATI TEAS exam.

Minimum requirements for consideration are:

1. High school diploma or successful completion of the GED.
2. A minimum of 18 college credits (100 level courses or higher) from a regionally accredited institution must be completed or in progress prior to applying to the program.
3. A minimum overall GPA of 2.50 must be obtained on all college level courses. A minimum GPA of 2.50 must be obtained on all math and science courses.
4. A letter grade of "C" or better must be obtained in each of the following Marshall University courses designated with an asterisk \* (or equivalent courses from other institutions).
  - a. MAT 121 or higher College Algebra\*
  - b. PHY 101 Introductory Physics (or higher)\*
  - c. PHY 101L Physics Lab\*
  - d. BSC 227 & 227L Human Anatomy\*
  - e. BSC 228 & 228L Human Physiology\*
  - f. CLS 105 Medical Terminology (or other medical terminology course)
  - g. Communications (the communication skills requisite may be met by a variety of courses including English, speech, or composition)
5. A letter grade of "C" or better must be obtained in each of the following MCTC courses designated with an asterisk \* (or equivalent courses from other institutions).
  - h. MAT 120 or higher College Algebra\*
  - i. SCI 110 Introductory Physics
  - j. SCI 110 Lab built in
  - k. Biology 260 (Human Anatomy)\*
  - l. Biology 265 (Human Physiology)\*
  - m. AH 151 Medical Terminology (or other medical terminology course)
  - n. Communications (the communication skills requisite may be met by a variety of courses including English, speech, or composition)
6. \*\* Any substitution or variation of pre-requisite course work requires special permission of Program Director \*\*
7. Applicants who did not attend Marshall or MCTC should verify with their registrars office that all course work will be transferrable as equivalent to MU or MCTC courses. Course work transferred as "unclassified will not be acceptable as requisite class.

## ACCEPTANCE PROCESS

Applicants are scored and ranked based on overall college GPA, course grades in prerequisite courses and selected additional science course work (e.g., general or organic chemistry or general physics) and high school GPA or GED scores. Applicants who submit ACT scores will receive extra points for scores of 19 or greater on the composite, math, science and verbal components. Students who took the SAT rather than the ACT will have the math and over all scores converted to ACT values.

Positions are offered to the top twenty-six applicants based on total points; however, the SOMI reserves the right to conduct personal interviews to assist in candidate selection. Remaining applicants comprise the alternate list for that year's admission. Alternates may be selected up to the beginning of the fall term.

The number of students accepted into sonography is limited. If the number of interested students exceeds the available slots, admission will be based first on MI coursework GPA. If there are ties then course grades in prerequisite sciences and MU GPA will be the determining factors. The deadline for application is April 1. *See the Sonography Link for additional information.*

Contact Jane Mannon, School of Sonography Program Director

[Patricia.manon@st-mary.org](mailto:Patricia.manon@st-mary.org)

304-526-7120.

Revised 3/04; 6/05; 8/07; 3/10, 9/12, 5/13, 6/15, 8/16, 7/21; 6/22; 7/25

## DISCLOSURE FORM – SOMI


	Class of 2024	Class of 2023	Class of 2022	Class of 2021	Class of 2020
PERCENT PASSING BOARDS – SMMC	100%	71%	93.3%	100%	93%
PERCENT PASSING BOARDS – NATIONAL	85.2%	84%	83.5%	83.8%	88%
PROGRAM COMPLETION RATE	100%	100%	100%	100%	87%
PROGRAM SATISFACTION RATE	100%	100%	89%	100%	100%
PROGRAM JOB PLACEMENT	100%	100%	100%	100%	100%

Revised: 7/21, 7/22, 6/23, 7/25

## FINANCIAL INFORMATION: FEES AND OTHER EXPENSES\

Unless otherwise noted, all fees are due at the beginning of each academic year. All fees are subject to change without notice.

Tuition is paid directly to Marshall University or MCTC. Students who receive financial aid from may receive fall aid by August but must contact the Financial Aid office early in order to do so.

Projected expenses apply to SOMI courses only at the CFE. Students who take coursework at Marshall University may have additional fees or other expenses.

Year One Fall		Year One Spring		
Tuition	4120	Tuition	4120	
Books	800 (estimate)	Books	100	
Uniforms	200 (estimate)			
Drug/Screen/Background check	100			
<b>Total</b>	<b>5220</b>	<b>Total</b>	<b>4220</b>	
Year Two Fall		Year Two Spring		
Tuition	4120	Tuition	4120	
Books	200 (estimate)	Books	100	
<b>Toital</b>	<b>4420</b>	<b>Total</b>	<b>4220</b>	
Year Three Fall		Year Three Spring		For MU BS Students Only
Tuition	4120	Tuition		
Books	100	Books	100	
Fees (graduation)	50			
<b>Total</b>	<b>4270</b>		<b>4100</b>	

Despite any policy to the contrary, for any students using U.S. Department of Veterans Affairs (VA) Post 9/11 G.I. Bill® (Ch. 33) or Vocational Rehabilitation and Employment (Ch. 31) benefits, while payment to the institution is pending from the VA, we will not:

- Prevent their enrollment;
- Assess a late penalty fee to;
- Require they secure alternative or additional funding;
- Deny their access to any resources (access to classes, libraries, or other institutional facilities) available to other students who have satisfied their tuition and fee bills to the institution.

However, to qualify for this provision, such students may be required to:

- Produce the VA's Certificate of Eligibility by the first day of class;
- Provide written request to be certified;
- Provide additional information needed to properly certify the enrollment as described in other institutional policies (see our VA School Certifying Official for all requirements).

## TECHNICAL STANDARDS

Technical standards are those standards or abilities that a student must possess to be successful in this profession. All applicants are required to sign a Technical Standards Review Declaration Form to be submitted with application form.

Part of the training in radiologic technology involves working one on one with patients. Student technologists are responsible for the safety and well-being of their patients while performing examinations. The students will also be manipulating equipment where the potential injury to the patient and student is present.

#### 1. Motor Skills

- extend the hands and arms in any direction
- hold, grasp and turn with the hands
- safely lift, manipulate and use equipment
- reach up to six feet off the floor
- ability to coordinate eyes, hands and feet rapidly and accurately
- lift 30-35 lbs. waist high
- push and pull at least 100 lbs.

#### 2. Visual Acuity

- sufficient far vision to see objects beyond 20 feet
- sufficient near vision to see objects within 20 inches
- depth perception
- see in all directions
- observe and evaluate changes in the patient or equipment

#### 3. Communication Ability

- perceive the nature of sounds through hearing
- be able to speak, hear and observe patients
- express and exchange information through written and verbal communication

#### 4. Behavioral Skills

- function effectively under stress
- establish sensitive and cooperative relations with patients and co-workers
- adapt to changing environments

\*\* See Admission above regarding Declaration Form\*\*

#### Credit Hour

One lecture credit hour is given for each 15 classroom contact hours, plus necessary outside preparation. For nursing courses, one laboratory credit hour requires at least 45 hours of laboratory work per credit hour, plus necessary outside preparation. Laboratory experiences are complements to classroom courses that focus on the theory and principles of the discipline.

Formulated: Prior to 5/2002

Revised: 6/02, 5/03, 5/04, 5/05, 5/06, 4/08, 3/10, 7/10, 9/12, 7/25

Reviewed: 7/21

## **FACULTY**

Dr. Joey Trader, Ed.D., MSN, RN, CNE  
Vice President of Schools of Nursing and Health Professions  
St. Mary's/Marshall University Cooperative ASN, Huntington, WV  
Marshall University, Huntington, WV  
Liberty University, Lynchburg, VA

Debby Moore, MS, RT(R)(CT)(ARRT)  
Director, School of Medical Imaging  
School of Medical Imaging, St. Mary's Medical Center  
Marshall University, Huntington, WV

Jeffrey Jobe, MA, RT(R) (ARRT)  
Didactic Faculty Radiography  
School of Medical Imaging, St. Mary's Medical Center  
Marshall University, Huntington, WV  
Liberty University, Lynchburg, VA

Wynema Napier, BS, RT(R)(MR) (ARRT)  
Didactic Faculty Radiography  
School of Medical Imaging, St. Mary's Medical Center  
Marshall University, Huntington, WV

Derry Osborne, MBA, RT(R) (CI) (ARRT)  
Clinical Coordinator, School of Medical Imaging  
School of Medical Imaging, St. Mary's Medical Center  
Marshall University, Huntington, WV  
Capella University, Minneapolis, MN

Gabby Ransbottom, BS, RT (R)(CT)(VI)(ARRT)  
Didactic Faculty Radiography  
School of Medical Imaging, St. Mary's Medical Center  
Marshall University, Huntington, WV

## **STAFF**

CFE Administrative Assistant	Paula Cremeans	304-526-1426
CFE Admissions Coordinator	Melba Curry	304-526-1423
CFE Admissions Coordinator	Leah Chapman	304-399-7110

PROCEDURE: Curriculum:



All sophomore and Junior students follow the same curriculum. At the end of the junior year MU BS students have several choices regarding curriculum tracks, BS Radiography students will select from one of six advanced modality tracks. AAS Radiography students will be ready to sit for their ARRT certification boards. General Education requirements from Marshall University or MCTC may change. Students should consult with the Advisor to determine any general education requirements. Students are required to complete all MU, MCTC, and SMMC graduation requirements prior to receiving their certificate from SMMC. Specific course sequences are subject to change.

## BS Medical Imaging Radiography

### Cardiovascular Sonography Track

Green Indicates Marshall University

Blue Indicates MCTC

BS MI Core Curriculum: General Ed requirements in (red) Program prerequisites in (blue)			
Year 1 Fall		Year 1 Spring	
Course	Credit	Course	Credit
<b>BSC 227 &amp; 227L Human Anatomy</b>	4	<b>BSC 228 &amp; 228L Human Physiology (Nat science)</b>	4
Communication: Course	3	<b>PHY 101 Conceptual Physics</b>	3
<b>Medical Terminology (CT)</b>	3	<b>PHY 101L Conceptual physics lab</b>	1
ENG 101 English Composition I (or equivalent) (composition)	3	<b>Social Science Course</b>	3
<b>MTH 121 or higher NOT MTH 125 (mathematics)</b>	3	<b>FYS 100 First Yr Sem Critical Thinking</b>	3
		<b>Composition: English 201</b>	3
Total	16	Total	17
Admission to MI program between year 1 and 2			
<b>Year 2 Fall</b>		<b>Year 2 Spring</b>	
MI 201 Introduction to Medical Imaging	3	MI 207 Imaging Procedures II	4
MI 202 Patient Care in Imaging Science	3	MI 208 Pharmacology for Imaging Science	2
MI 204 Radiographic Anatomy	3	MI 209 Intro to Equipment	3
MI 205 Imaging Procedures I	4	MI 210 Clinical Practice II	4
MI 206 Clinical Practice I	4	MI 212 Seminar in Imaging Science	1
MI 211 Seminar Imaging Science	1	MI 304 Pathology	3
Total	18	Total	17
<b>Summer (1<sup>st</sup> Intercession)</b>			
MI 213 Elective Clinical Practicum I	4		
Total	4		
<b>Year 3 Fall RADIOGRAPHY</b>		<b>Year 3 Spring</b>	
MI 302 Principles of Rad Production	3	MI 308 Rad Image Analysis	2
MI 303 Image Acquisition	3	MI 309 Digital Image Acquisition	2
MI 305 Clinical Practice IV	4	MI 310 Clinical Practice V	4
MI 306 Seminar in Imaging Sciences	1	MI 311 Seminar Imaging Sciences	1
MI 307 Radiobiology	3	MI 322 Radiation Safety	3

MI 321 Procedures III	3	Statistics	3
Total	17	Total	15
<b>Summer (1<sup>st</sup> intercession)</b>			
MI 320 (Elective)	4		
Total	4		
<b>Year 4 Radiography Professional Level: Students will select one of the following areas of emphasis</b>			
<b>Computed Tomography/Magnetic Resonance Imaging, Cardiovascular/Interventional, Mammography or Management</b>			
<b>MRI Elective Track</b>			
<b>Year 4 Fall</b>		<b>Year 4 Spring</b>	
MI 401 Seminar in Imaging Sci	1	MI 410 Research Medical Imaging (Capstone) * Requires Statistics as a prerequisite	3
		MI 411 Transcultural Healthcare ( <b>Writing intensive, multicultural</b> )	3
MI 403 Adv Practice Medical Img ( <b>Writing intensive</b> )	3	MI 426 Adv Clinical Practice II	4
MI 404 Advanced Sectional Anatomy	3	MI 432 Advanced MRI Theory	3
MI 406 MRI Equip and Proc	4	MI 435 Seminar ARRT Review II	1
MI 409 Adv Clinic I	4		
<b>Fine arts</b>	3		
Total	16-22	Total	14
<b>CT Elective Track</b>			
<b>Year 4 Fall</b>		<b>Year 4 Spring</b>	
		MI 405 CT Equipment and Proc	3
		MI 410 Research Methods (Capstone)*Requires Statistics as a prerequisite	3
MI 403 Adv Practice Medical Img ( <b>Writing intensive</b> )	3	MI 411 Transcultural Healthcare ( <b>Writing intensive, multicultural</b> )	3
MI 404 Advanced Sectional Anatomy	3	MI 426 Adv Clinical Practice II	4
MI 409 Adv Clinic	4	MI 435 Seminar ARRT Review II	1
<b>Fine arts</b>	3		
Total	14-20		14
<b>Vascular Interventional Radiology Track</b>			
<b>Fall</b>		<b>Spring</b>	
MI 401 Seminar in Img Sci	1	MI 407 Cardiovascular Anatomy	3
		MI 410 Research Medical Imaging (Capstone)*Requires Statistics as a prerequisite	3
MI 403 Adv Practice Medical Img (Writing intensive)	3	MI 411 Transcultural Healthcare ( <b>Writing intensive, multicultural</b> )	3
MI 408 Vascular Interventional	3	MI 426 Adv Clinical Practice II	4

MI 409 Adv Clinical Practice I	4	MI 435 Seminar ARRT Review II	1
<b>Fine arts</b>	3		
<b>Total</b>	20-23	<b>Total</b>	14
<b>Cardiovascular Track</b>			
<b>Fall</b>		<b>Spring</b>	
MI 401 Seminar in Img Science	1	MI 407 Cardiovascular Anatomy	3
		MI 410 Research Medical Imaging <b>(Capstone)*Requires Statistics as a prerequisite</b>	3
MI 403 Advanced Practice Med Img (Writing Intensive)	3	MI 411 Transcultural Healthcare <b>(Writing intensive, multicultural)</b>	3
MI 409 Adv Clinic	4	MI 426 Adv Clinical Practice II	4
MI 434 Cardiovascular Imaging	3		
<b>Fine Arts</b>	3		
<b>Total</b>	20-23		14
<b>Mammography Track</b>			
<b>Fall</b>		<b>Spring</b>	
MI 401 Seminar in Imag Sci	1	MI 410 Research Medical Imaging <b>(Capstone)*Requires Statistics as a prerequisite</b>	3
MI 403 Adv Practice Medical Img (Writing intensive)	3	MI 426 Adv Clinical Practice II	4
MI 409 Adv Clinical Practice I	3	MI 430 Mammography II	3
MI 414 Mammography I	4	MI 435 Seminar ARRT Review II	1
		MI 437 Breast Sonography (Elective)	3
<b>Fine arts</b>	3		
<b>Total</b>	17-20	<b>Total</b>	17
<b>Adv Diagnostic Rad Fall</b>			
MI 401 Seminar in Imaging Sci	1	MI 410 Research Medical Imaging <b>(Capstone)*Requires Statistics as a prerequisite</b>	3
MI 402 Quality Management	3		
MI 403 Adv Practice Medical Img (Writing intensive)	3	MI 426 Adv Clinical Practice II	4
MI 409 Adv Clinical Practice	4	MI 429 Geriatric/Pediatric Radiography	3
MI 427 Adv Trauma-Surgical Radiography	3	MI 435 Seminar ARRT Review II	1
<b>Fine arts</b>	3		
<b>Total</b>	17-20		14

## **COURSE DESCRIPTIONS**

### **MI 201 Intro to Radiography (3hrs) Fall**

Content is designed to provide an overview of the foundations in radiography and the practitioner's role in the health care delivery system. Principles, practices and policies of the health care organization(s) are examined and discussed in addition to the professional responsibilities of the radiographer. Students will become BCLS certified and undergo orientation required by JACHO prior to entering clinical practice. Students will be introduced to the concept of radiation protection for occupational workers, patients, family and visitors. PR: MTH 121, PHY 101, PHY 101L

### **MI 202 Patient Care in Imaging Science (3 Hrs) Fall**

Content is designed to provide the basic concepts of patient care, including consideration for the physical and psychological needs of the patient and family. Routine and emergency patient care procedures are described, as well as infection control procedures using standard precautions. The role of the radiographer in patient education is identified.

### **MI 204 – Radiographic Anatomy (3 Hrs) Fall**

Content is designed to introduce the student to radiographic anatomy. The student will identify anatomical structures depicted on radiographs including film radiography and digital imaging. The student will be introduced to sectional anatomy as demonstrated with computed tomography, magnetic resonance imaging and sonography. Emphasis is placed on identifying structures visible on correctly performed radiographic procedures.

PR: BSC 227 & 227L, BSC 228 & 228L : CR : MI 205

#### MI 205 Imaging Procedures I (4 Hrs) Fall

Content is designed to provide the knowledge base necessary to perform standard imaging procedures. Consideration is given to the evaluation of optimal diagnostic images. Includes a laboratory component. Students will practice imaging procedures in the laboratory prior to performing the procedure on patients. PR: BSC 227& 227L, BSC 228& 228L, MI 201: CR: MI 204, MI 206

#### MI 206 – Clinical Practice I Radiography (4 Hrs) Fall

Content and clinical practice experiences are designed to sequentially develop, apply, critically analyze, integrate, synthesize and evaluate concepts and theories in the performance of radiologic procedures. Through structured, sequential, competency-based clinical assignments, concepts of team practice, patient-centered clinical practice and professional development are discussed, examined and evaluated. Clinical practice experiences are designed to provide patient care and assessment, competent performance of radiologic imaging and total quality management. Levels of competency and outcomes measurement ensure the well-being of the patient preparatory to, during and following the radiologic procedure. Students will be assigned a number of mandatory and elective competencies to be completed during each clinical practice course.

PR: MI 201: CR: MI 202, MI 203, MI 205

#### MI 207 – Imaging Procedures II (3 Hrs) Spring

Content is designed to provide the knowledge base necessary to perform standard imaging procedures, including basic computed tomography (CT) and special studies. Consideration is given to the evaluation of optimal diagnostic images. Includes a laboratory component. Students will practice imaging procedures in the laboratory prior to performing the procedure on patients. PR: BSC 227 & 227L, BSC 228 & 228L, MI 204, MI 205, MI 206: CR: MI 210

#### MI 208 – Pharmacology and Drug Administration (2 Hr) Spring

Content is designed to provide basic concepts of pharmacology. The theory and practice of basic techniques of venipuncture and administration of diagnostic contrast agents and/or intravenous medications is included. The appropriate delivery of patient care during these procedures is emphasized. Though regulations regarding the administration of contrast media and intravenous medications vary in different states and institutions, the official position of the American Society of Radiologic Technologists is that venipuncture falls within the profession's general scope of practice and practice standards. Therefore, it should be included in the didactic and clinical curriculum with demonstrated competencies of all appropriate disciplines regardless of the state or institution where the curriculum is taught.

PR: BSC 227 & 227L, MI 202, MI 203, MI 204, proof of BCLS certification.

**MI 209 – Introduction to Imaging Equipment (3 Hr) Fall**

Content is designed to establish a knowledge base in radiographic, fluoroscopic, mobile and tomographic equipment requirements and design. The content also provides a basic knowledge of quality control and to provide entry-level radiography students with principles related to computed tomography (CT) imaging.

PR: MTH 121, PHY 101, PHY 101L

**MI 210 – Clinical Practice II Radiography (4 Hrs) Spring**

Students will begin clinical practice rotations in computed tomography, radiation oncology, nuclear medicine and cardiovascular procedures as well as diagnostic radiography. Emphasis is placed on achieving competency in mandatory and elective clinical procedures as required for ARRT certification.

PR: MI 206: CR: MI 207, MI 209

**MI 211 – Seminar in Imaging Science (1Hr) Fall**

Students will research and make short presentations on new developments in imaging science. Emphasis is placed on developing the student's oral communication skills, research skills, and introducing the student to the concept of continuing education as mandated by the ASRT.

**MI 212-Seminar in Imaging Science (1 Hr) Spring**

**MI 302 – Principles of Radiation Physics (3 Hr) Spring**

Content is designed to establish a basic knowledge of the nature and characteristics of radiation, x-ray production and the fundamentals of photon interactions with matter. The student will be introduced to the concepts of radioactivity including half-life and radioactive decay. This course will provide basic knowledge of principles associated with diagnostic radiography, nuclear medicine imaging and radiation oncology.

PR: PHY 101, PHY 101L, MTH 121, MI 209.

**MI 303 – Image Acquisition and Processing (3 Hr) Fall**

Content is designed to establish a knowledge base in factors that govern the image production process. Film imaging with related accessories is emphasized. There is a laboratory component to this course. The student will be able to experimentally alter image acquisition factors and evaluate the effects without unnecessary exposure to the patient.

PR: MTH 121, MI 210

**MI 304 – Radiographic Pathology (3 Hr) Spring**

Content is designed to introduce concepts related to disease and etiological considerations with emphasis on radiographic appearance of disease and impact on exposure factor selection.

PR: BSC 227, & 227L BSC 228 & 228L, MI 204: CR: MI 303

**MI 305 – Clinical Practice IV Radiography (4 Hr) Fall**

Students will continue clinical practice rotations in diagnostic radiography, computed tomography, radiation oncology, nuclear medicine and cardiovascular procedures. Emphasis is placed on achieving competency in mandatory and elective clinical procedures as required for ARRT certification including venipuncture.

PR: MI 301.

**MI 306 – Seminar in Imaging Science (1 Hr) Fall**

Students will research and make short presentations on advanced practice methodologies in imaging science. Emphasis is placed on developing the student's oral communication skills, research skills, and introducing the student to the concept of continuing education as mandated by the ASRT.

**MI 307 – Rad(3 Hr) Fall**

Content is designed to present an overview of the principles of radiation biology. The student will be introduced to the principles of the interaction of radiation with living systems. Radiation effects on molecules, cells, tissues and the body as a whole are presented. Factors affecting biological response are presented, including acute and chronic effects of radiation. PR: BSC 227 & 227L, BSC 228 & 228L, CHM 203,.

**MI 308 – Radiographic Image Analysis (2 Hr) Spring**

Content is designed to provide a basis for analyzing radiographic images. Included are the importance of minimum imaging standards, discussion of a problem-solving technique for image evaluation and the factors that can affect image quality. Actual images will be included for analysis.

PR: MI 204, MI 205, MI 208, MI 303, MI 304

**MI 309 – Digital Image Acquisition and Display (2 Hr) Spring**

Content is designed to impart an understanding of the components, principles and operation of digital imaging systems found in diagnostic radiology. Factors that impact image acquisition, display, archiving and retrieval are discussed. Guidelines for selecting exposure factors and evaluating images within a digital system assist students to bridge between film-based and digital imaging systems. Principles of digital system quality assurance and maintenance are presented. PR: IT 101, MI 303

**MI 310 – Clinical Practice V Radiography (4 Hr) Spring**

Students will continue clinical practice rotations in diagnostic radiography, computed tomography, radiation oncology, nuclear medicine and cardiovascular procedures. Emphasis is placed on achieving competency in mandatory and elective clinical procedures as required for ARRT certification including venipuncture. Special emphasis is placed on surgical, mobile and emergency radiography.

PR: MI 305

**MI 311-Seminar in Imaging Science (1 Hr) Spring**

Seminar on new and emerging techniques in imaging sciences

**MI 321 Imaging Procedures III (4 Hr) Fall**

Content is designed to provide the knowledge necessary for advanced diagnostic radiographic imaging procedures.

**MI 322 Radiation Safety (3 Hr) Spring**

PR: MI 302, MI 307

**MI 401 – Seminar in Imaging Science (1 Hr) Spring**

This course introduces the student to ARRT exam taking skills, mock examinations of the ARRT matrix, and self-evaluation studies. Study methods and application are also covered. A study of realistic clinical problems and situations, with emphasis on analyzing and evaluating these problems to formulate acceptable imaging modalities is included. Upon successful completion of the course, including a mock ARRT exit exam, the student will be awarded the Certificate from St. Mary's Medical Center School of Medical Imaging that will allow the student to sit for the ARRT Primary exam in Radiography

**MI 403 – Advanced Practice in Medical Imaging (3 Hr) Fall Meets Writing Across the Curriculum general education requirement for Marshall University**

This course is a core requirement for all students regardless of the Advanced Practice track. The focus of the course will include advanced discussion of communication, human diversity including the political context of health care, health care policy formation, health care law and compliance, patient information management and teamwork.

PR: ARRT

**MI 404 – Advanced Sectional Anatomy (3 Hr) Fall**

The ability to locate and identify structures in the axial (transverse), sagittal, coronal and orthogonal (oblique) planes is critical in all imaging modalities. Volumetric data sets and three-dimensional reconstruction of the body structures are increasingly important to the critical diagnosis and treatment of diseases. To enhance patient care and assist physicians with the prognosis, radiologic science professionals must understand cross-sectional anatomy in each of the imaging modalities. Content will include discussion of advanced pathophysiology.

PR: ARRT: CR: MI 405, MI 407

**MI 405 – CT procedures and equipment (3 Hr) Spring**

This course will focus on advanced patient care skills including ACLS, imaging procedures and equipment in computed tomography.

PR: ARRT: CR: MI 404, MI 408

**MI 406 – MRI procedures and equipment (3 Hr) Fall**

This course will focus on advanced patient care skills including ACLS, imaging procedures and equipment in magnetic resonance imaging.

PR: ARRT: CR: MI 404, MI 408

**MI 407 – Cardiovascular Anatomy and Physiology (3 Hr) Spring**

This course will focus on cardiovascular anatomy and physiology including the heart anatomy and coronary, systemic, pulmonary, peripheral and cerebral circulation. Content will include discussion of advanced pathophysiology relating to the vascular system including cardiac physiology.

PR: ARRT: CR: MI 407, MI 408

**MI 408 – Vascular Interventional Imaging (3 Hr) Fall**

This course will focus on advanced patient care skills including ACLS, procedures and equipment utilized in cardiovascular and vascular/interventional imaging.

PR: ARRT: CR: MI 406, MI 408

**MI 409 – Advanced Clinical Practice (4 Hr) Fall**

Students in advanced clinical practice tracks will be required to complete ACLS certification. Students will be responsible for arranging clinical experience in an approved clinical facility in computed



tomography, magnetic resonance imaging, vascular/interventional imaging or cardiac imaging. ARRT advanced practice exams in CT, MRI, VI and CV require that all recorded clinical procedures be completed within 24 months of the exam. Students will be advised of specific exam content.  
PR: ARRT, ACLS

#### MI 410– Research in Medical Imaging (3 Hr) Capstone Course Spring

This course is a core requirement for all students regardless of the Advanced Practice Track. Research methods and information literacy are important because the health care profession is continually changing, which requires the radiologic technologist to possess new knowledge to function competently. The radiologic technologist should contribute to the body of knowledge and be able to effectively analyze resources to promote growth in the profession. The attitude of lifelong learning enables the radiologic technologist to stay in step with the current health care environment and be prepared to help foster the future and increase awareness of the profession in the global community. This content is geared to increase and disseminate intellectual inquiry, information literacy and the use of scholarly research methods.

PR: ARRT, Statistics, MI 402, MI 403. This course will satisfy the Writing Across the Curriculum Requirement.

#### MI 411-Transcultural Healthcare (3 Hr) Spring meets Multicultural and Writing Across the Curriculum general education requirements for Marshall University

This course is intended to provide an introduction to a culturally comparative analysis of health and healing. Readings provide both comparative ethnographic details and a theoretical framework for organizing and interpreting information about health. Class will meet weekly to discuss assigned readings. It is important that healthcare workers understand the concept of culture as a fluid, permeable, changeable set of collective beliefs, values, and behaviors that inform, shape and constrain the worldviews and personal choices of individuals in healthcare decision making. The course emphasizes a multidisciplinary approach to healthcare that will promote cultural sensitivity toward patients, physicians and healthcare professionals.

#### MI 414 – Mammography (3 Hr) Fall

Introduction to medical imaging of the breast. Focus is to prepare student for advanced certification exam in Mammography.

#### MI 415-RIS and PACS Principles (3 Hr) Spring

Course content provides basic knowledge of digital storage systems, computer networking, radiology information systems (RIS), and picture archiving and communication systems (PACS).

#### MI 426-Advanced Clinical Practice II (4 hr) Spring

Students will arrange clinical experience in selected imaging modality to gain competency in clinical procedures required to sit for post-primary ARRT certification exams.

#### MI 427-Advanced Trauma-Surgical Radiography (3 hr) Fall

Advanced practice course in trauma and surgical radiography for imaging sciences.

#### MI 429-Geriatric and Pediatric Radiography (3 hr) Spring

This course will focus on advanced diagnostic imaging in the geriatric and pediatric population including mobile radiography.

MI 430-Mammography II (3 hr) Spring  
Advanced medical imaging of the breast.

MI 431-Advanced Clinical Practice III (4 hr) Summer Intercession  
Elective advanced clinical practicum in radiography or sonography.

MI 432-Advanced MRI Theory (3 hr) Spring  
Advanced Magnetic Resonance Imaging Equipment and Procedures

MI 434-Cardiovascular Imaging (3hr) Fall  
This course will focus on diagnostic and interventional procedures of the cardiovascular system.

MI 435-Seminar ARRT Exam Review II (1 hr) Spring  
This is a review course for the ARRT primary exam certification

MI 485 – 488 Independent Study (1-4 Hr) Fall, Spring  
Course will provide imaging student the opportunity to pursue independent study.

Reviewed: 7/21; 6/22; 7/23; 7/25