



CENTER FOR EDUCATION

Catalog
2016 - 2017

SCHOOL OF NURSING
SCHOOL OF RESPIRATORY CARE
SCHOOL OF MEDICAL IMAGING

ST. MARY’S MEDICAL CENTER
 CENTER FOR EDUCATION
 SCHOOL OF NURSING, SCHOOL OF MEDICAL IMAGING, SCHOOL OF RESPIRATORY CARE

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CFE Catalog 2015 - 2016

ST. MARY'S MEDICAL CENTER
CENTER FOR EDUCATION

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.

Please read the information in this catalog as it relates to the school in 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 pay attention to 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.

Sincerely,

Dr. Shelia M. Kyle
Vice President Schools of Nursing and Health Professions

ST. MARY'S MEDICAL CENTER
CENTER FOR EDUCATION

SCHOOL OF NURSING, SCHOOL OF MEDICAL IMAGING, SCHOOL OF RESPIRATORY CARE

GENERAL INFORMATION

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

All three schools, in cooperation with Marshall University, offer collegiate degrees. Support courses for all three schools are taught at Marshall University (the main Huntington campus or any of their off-campus sites). The specific professional courses for all three schools are taught at the Center for Education. Upon completion of any of the programs, the graduates are eligible to make application for licensure or certification from their appropriate 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 440 bed medical center. The medical center offers broad health care experiences in surgery, medicine, pediatrics, obstetrics, psychiatry, and extended care. The medical center is accredited by the Joint Commission on Accreditation of Hospitals, and has membership in The Catholic Health Association, The American Hospital Association, and the West Virginia Hospital Association.

Students in the three 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 health care services in the eastern part of the United States of America. From the humble beginnings of the dedicated Pallottine Sisters, many health care 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 graduated over 4000 students.

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 are able to 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. The program began in 1964 and entered into a cooperative agreement with Marshall University in 2009. The program curriculum is designed to prepare students to practice radiography and introduce students to related specialized imaging modalities. The curriculum is structured so that the entering freshman will complete all degree requirements within four years. In addition, an option is available for the credentialed Radiographer to enter the professional portion of the program (fourth year) and obtain the degree.

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

School of Respiratory Care

The School of Respiratory Care was founded in 2005. It is a cooperative baccalaureate program with Marshall University. The support courses are taught at Marshall University, 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 come into contact with persons who have been involved in a traumatic accident, experienced a heart attack, or the birthing of premature infants and patients in a pulmonary rehabilitation program.

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, and Marshall University policy should be directed to the Dean of Student Affairs.

CIVIL RIGHTS ASSURANCE

No person in the United States of America on the basis of 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 for 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. The 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 3-4 hours 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. Some information might be shared via the electronic method. All students do have a Marshall 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 schools. Information regarding safety/security incidents is provided annually to the Vice President 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.

MISSION AND 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 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 care is both an art and a science. It is a blend of scientific knowledge and clinical practice.

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 are related to previous knowledge and when learning is goal directed.

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

ACCREDITATION AND MEMBERSHIP

School of Nursing

St. Mary's/Marshall University Cooperative Associate in Science in Nursing program is fully approved by the West Virginia Board of Examiners for Registered Professional Nurses (WVBOE-RN) and accredited by the Accreditation Commission for Education in Nursing, Inc. (ACEN).

- The address for the WVBOE-RN is 101 Dee Drive, Suite 102, Charleston, WV 25311-1620, phone 304/558-3596. www.wvrnboard.com
- The ACEN is located at 3343 Peachtree Road N.E., Suite 850, Atlanta, GA 30326, phone 404/975-5000. www.acenursing.org

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 Commission on Accreditation of the Allied Health Education Programs (CAAHEP), in collaboration with the Committee on Accreditation for Respiratory Care (CoARC), 1248 Harwood Road, Bedford, TX 76021, 1-817-283-2835, <http://www.coarc.com/>.

TITLE: ADMISSION POLICY

POLICY: All applicants must meet specified requirements to be considered for admission as a student to any of the schools of the Center for Education at St. Mary's Medical Center.

PURPOSE:

- To provide potential applicants with detailed information regarding the admission requirements for the program.
- To facilitate admission to the school.
- To assure fair, impartial admission to the school.

PROVISIONS OR DIRECTIONS FOR IMPLEMENTATION:

All applicants must be either a graduate of an accredited high school or have a high school equivalent through GED testing. All applicants are strongly encouraged to take the ACT exam and submit results to the appropriate school. **Applicants should review each school's specific requirements.**

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

- A minimum high school GPA of 3.00
- A minimum of "C" on all college courses completed
- Taken the ACT examination and have the score sent to the appropriate school at the Center for Education
- Taken the TEAS V Exam – School of Nursing applicants

THE FOLLOWING HIGH SCHOOL COURSES ARE STRONGLY RECOMMENDED:

- English – 4 units
- Science 3 units (Chemistry, Advanced Biology, and upper level science courses)
- Mathematics – 2 units, one of which should be Algebra
- Social Studies – 3 units

NOTE: It is recommended that high school students take a college prep track and take advanced courses whenever possible. Neither the School of Medical Imaging or the School of Respiratory Care take students directly out of high school.

B. GED APPLICANTS MUST:

- Meet criteria for GED admission as stated in the Marshall University catalog.
- Have 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.
- Have a minimum grade of "C" for each required non-major support course completed.
- Have an overall 2.00 GPA or better on all courses completed.
- Have an overall 2.00 GPA on all courses completed at Marshall University
- Have ACT score (if taken) sent to the Center for Education.
- Request that GED Certification be sent to both St. Mary's and Marshall University.
- Taken the TEAS-V Exam if applying to the School of Nursing

Applicants who have achieved higher grades in required science courses are given higher points.

NOTE: STUDENTS WHO HAVE BELOW A "C" ON ANY REQUIRED NON-MAJOR COURSES WILL NOT BE CONSIDERED FOR ADMISSION UNLESS THE COURSES HAVE BEEN RETAKEN AND A GRADE OF "C" OR ABOVE ACHIEVED. A GRADE OF D OR F MUST BE REPORTED. IT IS NOT AN ACCEPTABLE GRADE.

D. ADDITIONAL INFORMATION FOR ADMISSION TO THE CENTER FOR EDUCATION:

- A "C" grade or better is required for each of the courses transferring for credit toward the requirements for the program for which you are applying. CLEP credit is also accepted for some courses. St. Mary's Center for Education and Marshall University reserve the right to accept or reject individual non-major courses that are other than those listed in the selected Master Curriculum of each program.

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

ADMISSION PROCEDURE:

- The deadline for submitting applications differ for each school. Please meet the deadline as established.
- The following must be submitted to the Center for Education at the following address:

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

1. Completed application
 2. Application fee of \$30, which is non-refundable
 3. Official high school transcript
 4. Official transcript from ALL colleges or universities attended, including Marshall University.
 5. ACT scores (St. Mary's code is 4551). If the ACT test has not been taken, contact Marshall University for dates of administration. If ACT prep course is needed, call 304-696-6855.
 6. Applicants must sign the Code of Conduct Statement and the Drug & Alcohol Testing statement contained in the application.
 7. Pre-admission test fee will be assessed as appropriate.
 8. Call the CFE at 304/526-1423 to schedule the TEAS exam.
- The following must also 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 application
 2. Appropriate application fee
 3. Official high school transcript
 4. Official transcripts from ALL colleges and universities attended
 5. ACT score (Marshall University code is 4526) if required
- Applicants must be admitted to Marshall University if applying for the School of Nursing, the School of Respiratory Care, or the School of Medical Imaging.

PROCESS FOR SELECTION:

- Admission to any of the CFE schools is competitive.

TITLE: STUDENT REQUIREMENTS PRIOR TO BEGINNING CLASSES

POLICY: Prior to admission to the classroom or laboratory areas, the student must provide documentation of health status and completion of specified requirements.

PURPOSE: To ensure that each student meets the rigorous demands of a position in the desired health care position upon graduation.

PROVISIONS OR DIRECTIONS FOR IMPLEMENTATION:

1. A satisfactory physical examination by a physician or a certified nurse practitioner must be completed prior to entering the school.
2. If, during the physical examination, the applicant is found to be unable to meet the physical, emotional and/or functional demands of the desired position, the admission of the applicant is voided. See criteria for desired profession later in this catalog.
3. Proof of immunity for measles and rubella is required, if born after January 1, 1957.
4. PPD test results or proof of being a positive reactor must be provided. All students must have a 2-Step PPD prior to the first CFE course. Thereafter, students are expected to have an annual PPD in June or July prior to the fall semester.
5. Varicella (chickenpox) status must be provided prior to beginning school.
6. Hepatitis B vaccine series. Students are strongly encouraged to complete the Hepatitis B vaccine series prior to beginning the first year.
7. Hepatitis C titer.
8. All students must show proof of receiving a TDAP prior to admission to the school.
9. A current CPR certification/recertification must be maintained. Students must complete the following course provided by the Center for Education prior to beginning the first class: American Heart Association BLS for Healthcare Providers (CPR & AED) Program. This certification will be current for 2 years. Students, who are in the respiratory or medical imaging program, or part-time track of the nursing program, will be required to recertify at the end of the first two years. Failure to obtain/maintain certification/recertification will result in the student being ineligible to participate in laboratory experiences.
10. Information regarding health status may be shared with clinical agencies on request of the agency.
11. Attendance at an orientation session is required as scheduled at the Center for Education.
12. Criminal Background Check and Drug Screen – must both be completed. A positive drug screen may result in revocation of admission. Positive background checks will be assessed on an individual basis.
13. Standardized examinations must be completed after admitted to the school, if required by the program.
14. A preparedness level of basic or higher must be achieved on the ATI TEAS V Exam for the School of Nursing.
15. For the School of Nursing and School of Respiratory Care, a score of 76% must be achieved on a Math Proficiency examination. A maximum of three attempts will be provided. Failure to meet this requirement will revoke admission status.

Revised 4/1/08, 5/10, 8/12; 7/15

Reviewed: 7/10

Disability Statement

St. Mary's Center for Education, along with Marshall University, is committed to equal opportunity in education for all students, including those with physical learning and psychological disabilities. It is the responsibility of students with disabilities to contact the Office of Disabled Student Services (DSS) at Marshall University, Prichard Hall 117, phone 304/696-2271, to provide documentation of their disability. Following this, the DSS Coordinator will send a letter to the Vice President of Schools of Nursing and Health Professions at St. Mary's Center for Education outlining the academic accommodation(s) the student will need to ensure equality in classroom experiences, outside assignments, testing and grading. The VP of Schools of Nursing and Health Professions and faculty at St. Mary's Center for Education will meet with the student to discuss how the accommodation(s) requested will be provided. For more information, please visit <http://www.marshall.edu/disabled> or contact Marshall University Disabled Student Services at Prichard Hall 117, phone 304/696-2271.

SCHOOL OF NURSING

SCHOOL OF NURSING

A. ADMISSION

See admission requirements listed earlier in this catalog for admission to the Center for Education. See application scoring sheet for points. Applicants are selected according to the points received.

B. ADMISSION REQUIREMENTS FOR SCHOOL OF NURSING

Students who have **BELOW A “C”** on any required non-nursing courses will **NOT BE CONSIDERED FOR ADMISSION**, unless the course has been retaken and a grade of “C” or above achieved.

Students who received grades that were academically less than passing in 2 or more nursing courses (in either a registered nurse or licensed practical nurse program) will not be considered for transfer and/or admission.

C. ADMISSION DEADLINES

January 15 for August admissions. July 1 for January admissions.

D. APPLICATION

The application form is found on the web page at www.st-marys.org. Go to “Education & Training” tab. Click on School of Nursing. The application form is found on that page. Complete the form and follow the Admission Process discussed in this catalog on page 9.

E. STUDENTS REQUESTING TRANSFER FROM ANOTHER RN NURSING PROGRAM MUST HAVE:

- Completed application for both Marshall University and St. Mary’s School of Nursing
- A minimum grade of “C” in each non-nursing course completed
- An overall 2.00 GPA or better on all courses completed
- An overall 2.00 GPA on all courses completed at Marshall University
- The score of the ACT examination (if taken) sent to St. Mary’s School of Nursing
- A copy of all course syllabi for the completed nursing courses at the previous nursing school
- A written recommendation from the Director of the previous nursing program
- A completed Transfer Assessment Form from the Director (or designee) from the previous nursing school
- Paid a \$75 transfer consideration fee

F. APPLICANTS WHO ARE LPN’S AND ARE SEEKING ADVANCED PLACEMENT MUST HAVE:

- Completed application for both Marshall University and St. Mary’s School of Nursing
 - Sent an official transcript from the LPN program to St. Mary’s School of Nursing
 - A minimum grade of “C” in each required non-nursing course completed
 - Complete additional pre-entrance requirements include passing a math proficiency test and taking selected standardized examinations as specified by St. Mary’s School of Nursing
 - An unencumbered LPN license
-
- STUDENTS WHO HAVE BELOW A “PASSING GRADE” IN TWO OR MORE RN NURSING COURSES AT ANY INSTITUTION AFTER COMPLETING THE PN-NCLEX, ARE NOT ELIGIBLE FOR ADMISSION TO ST. MARY’S SCHOOL OF NURSING.

NOTE: THE APPLICANT PACKET WILL BE EVALUATED ON AN INDIVIDUAL BASIS.

- STUDENTS WHO HAVE BELOW A “C” ON ANY REQUIRED NON-NURSING COURSE WILL NOT BE CONSIDERED FOR ADMISSION UNLESS THE COURSE HAS BEEN RETAKEN AND A GRADE OF “C”

OR ABOVE ACHIEVED.

- STUDENTS WHO HAVE BELOW A “PASSING GRADE” IN TWO OR MORE RN OR LPN NURSING COURSES AT ANY INSTITUTION ARE NOT ELIGIBLE FOR ADMISSION TO ST. MARY’S SCHOOL OF NURSING.

G. ALL APPLICANTS TO THE SCHOOL OF NURSING MUST BE ABLE TO MEET THE PHYSICAL, EMOTIONAL AND FUNCTIONAL DEMANDS OF A NURSING POSITION. THE CRITERIA FOLLOWS:

Physical, Emotional and Functional Requirements of a Nursing Position

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

- Aptitudes considered to be occupationally significant for satisfactory performance are:
 1. Reading/verbal ability to read and understand meanings of words and ideas associated with them and to use them effectively. Must be able to present information and ideas clearly.
 2. Writing ability to write with proper grammar and spelling.
 3. Numerical ability to perform arithmetic operations quickly and accurately.
 4. Form perception ability to perceive pertinent details in objects, pictorial or graphic material; to make visual comparisons and discriminations and see slight differences in shapes and shadings of figures with widths and lengths of lines.
 5. Motor coordination to coordinate eyes and hands or fingers rapidly and accurately in making precise movements with speed, as well as the ability to make movement responses accurately and quickly.
 6. Finger dexterity to move fingers and manipulate small objects with the fingers rapidly and accurately.
 7. Manual dexterity to move hands easily and skillfully and work with hands in placing and turning motions.
 8. Eye-Hand-Foot coordination to move the hand and foot coordinately with each other in accordance with visual stimuli.
 9. Color discrimination to perceive or recognize similarities or differences in colors, or in shades or other values of the same color; to identify a particular color, or to recognize harmonious or contrasting color combinations or to match colors accurately. Deficiencies in this area will be evaluated on an individual basis.
- Temperaments considered significant for satisfactory performance are situations involving:
 1. Communications with patients and the public, whether on the telephone, in writing or in person.
 2. A variety of duties often characterized by frequent change.
 3. Repetitive or short-cycle operations carried out according to set procedures or sequences.
 4. The direction, control, and planning of an entire activity or the activity of others.
 5. The necessity of dealing with people in actual job duties beyond giving and receiving instructions.
 6. Influencing people in their opinions, attitudes, or judgments about ideas of things.
 7. Performing adequately under stress when confronted with the critical or unexpected.
 8. The evaluation of information against sensory or judgmental criteria.
 9. The evaluation of information against measurable or verifiable criteria.
 10. The interpretation of feelings, ideas, or facts in terms of personal view point.
 11. The precise attainment of set limits, tolerances, or standards.
- Physical Demands include the following:
 1. Reaching – extending the hands or arms in any direction.
 2. Handling – seizing, holding, grasping, turning or otherwise working with the hand or hands.
 3. Fingering – picking, pinching or otherwise working with the fingers primarily.

4. 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.
5. Talking – expressing or exchanging ideas by means of the spoken word.
6. Hearing – perceiving the nature of sounds by the ear; must be able to hear assessment sounds with or without assistive devices.
7. Acuity – near-clarity of vision at 20 inches or less with or without assistive devices.
8. Depth perception – 3 dimensional vision to judge distance and space relationships so as to see objects where and as they actually are.
9. Field of vision – the area that can be seen up and down or to the right or left while the eyes are fixed at a given point.
10. Accommodation – adjustment of the lens of the eye to bring an object into sharp focus.
11. Color vision – the ability to identify and distinguish colors. Deficiencies in this area will be evaluated on an individual basis.
12. Lifting from the waist to overhead – frequency 11-24 pounds; occasionally 20-50 pounds.
13. Lifting from floor to waist – frequently 35-50 pounds.
14. Carrying – frequently 35-50 pounds.
15. Pushing – occasionally up to and over 100 pounds.
16. Bending/Stooping – frequently.
17. Balancing – continuously.
18. Pushing/Pulling – frequently.
19. Walking and Standing – frequently.
20. Climbing – occasionally.

NOTE: This description reflects the general details considered necessary to describe the principle functions of the physical demands for this program.

Formulated: Fall 2004

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

Reviewed: January 2010

ST. MARY'S/MARSHALL UNIVERSITY COOPERATIVE ASN
ENTRANCE EXAM (TEAS)

The Test of Essential Academic Skills (TEAS) assesses basic academic skills in the areas of reading, mathematics, science, and English and language usage. All applicants must take this exam (TEAS) which will be administered at the CFE via computer.

COMPONENT	TIME ALLOWED IN MINUTES	NUMBER OF QUESTIONS
Reading	58	48
Mathematics	51	34
Science	66	54
English/Language	34	34

The total time allowed for the test is 209 minutes. The TEAS is composed of 170 multiple choice questions, however 20 are unscored, pre-test questions. Each question has four options. Questions not answered count against the student.

CREATING AN ATI ACCOUNT

All applicants will create an account when they come to the Center for Education (CFE, 29th Street and 5th Avenue) to take the exam. You must know your Marshall University 901 number.

COST OF THE TEST

The cost of the test is \$65 and is non-refundable. You must pay for the test when you schedule to take it. Checks may be made payable to "St. Mary's School of Nursing".

PREPARING FOR THE TEAS

The following items are available for purchase at www.atitesting.com for an additional cost.

- Learning Strategies: Your guide to Classroom and Test-Taking Success
- TEAS Pre-Test Study manual
- TEAS Online Practice Test (2 versions)

SCHEDULING THE TEAS

You must call 304/526-1423 and schedule your exam. A notice of 48 hours is required to reschedule a second testing date. Failure to notify the school within 48 hours constitutes forfeiture of the testing fee. Rescheduling of a missed exam will be on a space available basis. Applicants who do not keep this appointment will result in forfeiture of the exam fee.

TAKING THE EXAM

- Please arrive at the CFE a minimum of 15 minutes before the scheduled exam time. You will not be allowed into the exam room if you arrive late.
- The examination will take about 4 hours.
- Paper and pencils will be provided for your use during the exam.
- Giving, receiving or exchanging information while the examination is in progress is not permitted under any circumstances.
- Examinees are not permitted to review study material and/or notes of any kind during the examination.
- The following items are prohibited from the examination room:
 - Food, drink, candy or gum
 - Books or notes of any kind
 - Sunglasses, hats, or any jacket or shirt with a hood
 - Cell phones, pagers, beepers, or PDA
 - Headsets, ear plugs, iPods or any form of media player
 - CALCULATORS
 - Recording or listening devices
 - All watches
 - Mechanical pencils, rules, slide rules or compasses
 - Purses, backpacks, computer bags, satchels, etc.

The examiner has the authority to terminate an exam for any individual who does not adhere to the above rules.

SPECIAL TESTING ARRANGEMENTS

If you have a diagnosed learning disability or other reason which prevents you from taking the TEAS under standard conditions, you may request special accommodations. Applicants requesting special accommodations for learning/testing are to contact the Office of Disabled Student Services (DSS) in Prichard Hall, 117, 304/696-2271, at Marshall University. Applicants must provide documentation of their disability to the DSS Coordinator, who will notify the Vice President of Schools of Nursing and Health Professions (VPSONHP) at the CFE, outlining the accommodations needed.

Your performance report will indicate that you took the examination under non-standard conditions.

SCORING

Points will be assigned based on the preparedness level earned. In order to be considered for admission, you must have achieved a level of basic, proficient, advanced or exemplary in the ATI Academic Preparedness Category. Students who earn a rating of Developmental will not be considered for admission.

Admission is competitive. Achieving a level of basic or higher does not guarantee admission.

See scoring sheet for information related to points awarded for the academic preparedness level.

RETESTING

If an applicant does not achieve the desired preparedness level, the applicant must wait at least 3 weeks before retesting for

admission. An applicant may only repeat the exam once during an admission cycle. The TEAS score is valid for one year from the date last taken. The exception would be if the TEAS Exam has been revised by the company.

DATES AND TIMES FOR TEAS V EXAMS FOR ADMISSION

Call 304/526-1423 or 304/526-1426 to schedule the exam. All examinations are held at the Center for Education, located at 29th Street and 5th Avenue. All applicants may park on the parking lot associated with the CFE.

CURRICULUM OBJECTIVES/STUDENT LEARNING OUTCOMES

Upon completion of the program, the graduate will:

Professional Behavior

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 in order 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

Revised: 7/10, 8/12, 7/15

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, integrity, excellence, ethics, holism and patient-centeredness.

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 patient centered care, evidence based practice, quality improvement, safety, informatics, teamwork and collaboration:

The nursing process provides the framework for provision of patient care (ANA, 2010). **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, 2011) Patient values guide all clinical decisions (IOM, 2009). 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) Patient centered care supports the respectful, efficient, safe and well-coordinated transition of the patient through all levels of care (NLN, 2010).

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 (IOM, 2009).

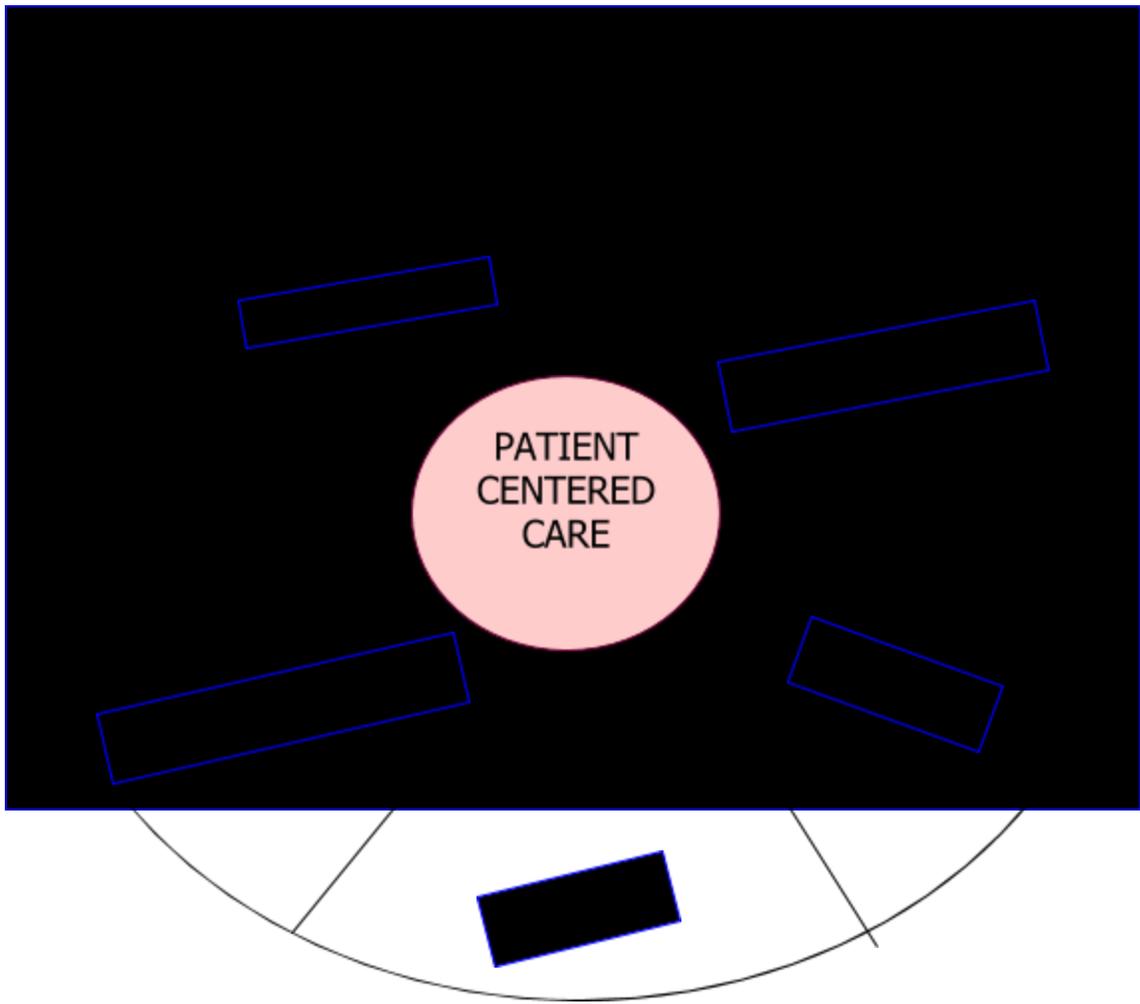
Professional nurses have an ethical obligation to improve health care through the application of **quality improvement** activities. Quality improvement is the use of data to monitor the outcomes of care processes and uses improvement methods to design and test changes to continuously improve the quality and safety of health care systems (QSEN, 2011).

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, 2011).

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, 2011).

A culture of integrity and ethical behavior is essential for the development of **teamwork and collaboration** in order to achieve quality patient care. To insure 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, 2011).

Education is an interactive process which includes formal instruction and experiential learning in the pursuit of excellence. This life-long process encompasses 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 are related to previous knowledge and when learning is goal directed. The role of faculty is to facilitate the students' learning experience and professional development through systematic guidance in their endeavors to acquire the knowledge, skills and judgments necessary for competence in health care practice.



KNOWLEDGE
NURSING THEORY
CLINICAL PRACTICE

SMMC VALUES

- COMPASSION
- HOSPITALITY
- REVERENCE
- INTERDEPENDENCE
- STEWARDSHIP
- TRUST

NLN CORE VALUES

- CARING
- DIVERSITY
- EXCELLENCE
- PATIENT CENTEREDNESS
- ETHICS
- INTEGRITY
- HOLISM

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, Holism, Integrity, Ethics, Excellence and Patient Centeredness.

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 constructions in an ongoing dynamic interaction.

The outer circle displays the core competencies of Evidence-based Practice, Informatics, Quality Improvement, Teamwork & Collaboration, and Safety as constructions 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 the performance of nursing roles. 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

Reviewed 4/16/01, 5/05, 7/07, 3/10, 7/10, 8/12

TITLE: PROGRAM REQUIREMENTS

POLICY: Graduation from the program requires successful completion, with a grade of “C” or higher, of seventy two (72) credit hours. Forty two (42) credit hours are nursing courses and thirty (30) credit hours are support courses. A GPA of 2.00 or higher is required for graduation.

PURPOSE: To meet the requirements for graduation and eligibility to sit for the NCLEX-RN examination.

PROVISIONS OR DIRECTIONS FOR IMPLEMENTATION

FALL ADMISSION		SPRING ADMISSION	
Prior to First Nursing Course		Prior to First Nursing Course	
BSC 227.....	4 Credits	BSC 227.....	4 Credits
CHM 205.....	3	CHM 205.....	3
PSY 201.....	3	PSY 201.....	3
ENG 101.....	<u>3</u>	ENG 101.....	<u>3</u>
	13 Credits		13 Credits
	Fall Semester		Spring Semester
BSC 228.....	4 Credits	BSC 228.....	4 Credits
PSY 311.....	3	PSY 311.....	3
DTS 314.....	3	DTS 314.....	3
NUR 120.....	<u>8</u>	NUR 120.....	<u>8</u>
	18 Credits		18Credits
	19 Credits		
	Spring Semester		Fall Semester
BSC 250	4 Credits	BSC 250.....	4 Credits
NUR 220.....	8	NUR 220.....	8
NUR 225.....	<u>4</u>	NUR 225.....	<u>4</u>
	16 Credits		16 Credits
	Fall Semester		Spring Semester
NUR 230.....	7	NUR 230.....	7
NUR 235.....	<u>6</u>	NUR 235.....	<u>6</u>
	13 Credits		13 Credits
	Spring Semester		Fall Semester
ENG 201.....	3 Credits	ENG 201.....	3
NUR 241.....	<u>9</u>	NUR 241.....	<u>9</u>
	12 Credits		12 Credits

Required credits for graduation
 Nursing Courses – 42 credits
 Support Courses - 30
 72 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
Revised: 6/02, 5/03, 5/04, 5/05, 5/06, 4/08, 3/10, 7/10, 12/12, 6/15,

TITLE: PART-TIME TRACK

POLICY: Students who elect the part-time track to complete program requirements must seek the advice of faculty to ensure all requirements are met and all nursing courses are completed within three years of admission to the program.

PURPOSE: To ensure all courses are completed in a timely manner, taking into consideration all pre- or co-requisites.

PROVISIONS OR DIRECTIONS FOR IMPLEMENTATION

Recommended Sequence of Nursing Courses:

Prior to admission
BSC 227.....4 Credits
CHM 205.....3
PSY 201.....3
ENG 101.....3
13 Credits

First Semester
NUR 120.....8 Credits
BSC 228.....4
PSY 3113
DTS 314.....3

Second Semester
NUR 220.....8 Credits
BSC 250.....4

Third Semester
NUR 225.....4 Credits

Fourth Semester
NUR 235.....6 Credits
ENG 201.....3

Fifth Semester
NUR 230.....7 Credits

Sixth Semester
NUR 241.....9 Credits

Formulated: Prior to 5/2002
Reviewed: 8/12

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, CHM 205, ENG 101, PSY 201; CR –BSC 228, DTS 314, PSY 311)

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)

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

Reviewed: 5/05, 3/10, 7/10, 8/12

RATIONALE FOR COURSE PLACEMENT

BSC 227	Principles of normal human anatomy are required to understand basic human needs.
BSC 228	Principles of normal human physiology are required to understand basic human needs and pathophysiology.
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.
DTS 314	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.
NUR 120	Introduction to Nursing provides the fundamental concepts involved in the basic role of the nurse.
BSC 250	Microbiology provides basic concepts that relate to infection control and aseptic technique that is used throughout nursing practice.
PSY 201	Basic psychology helps explain the human behavior in response to illness.
ENG 101	Written communication skills are important throughout a professional discipline.
ENG 201	This course allows the student to build on written communication skills.
NUR 220	Health Alterations I provides concepts of alterations in physiological functioning and other knowledge basic to the nursing role.
PSY 311	Child Development explains principles of developmental stages covering specific age groups.
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. Requirements of an expanded 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
Reviewed: 7/10

MARSHALL UNIVERSITY COURSE DESCRIPTION

SUPPORT COURSES

BIOLOGICAL SCIENCE 227 – Human Anatomy – 4 credit hours

Principles of gross and microscopic anatomy of human body systems and their development.

(PR – ACT Comp. 19 or higher; or 12 hrs. college credit, 100 level or above, with minimum GPA of 2.3)

BIOLOGICAL SCIENCE 228 – Human Physiology – 4 credit hours

Basic concepts of human physiology, including an introduction to physiological control mechanisms operating at cellular, tissue, organ, and systems level.

(PR – BSC 227 with grade of C or better)

BIOLOGICAL SCIENCE 250 – Microbiology and Human Disease – 4 credit hours

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

(PR – BSC 227 or equivalent, with grade of C or better)

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

An introduction to chemical science, its development, basic concepts and interrelationships with other sciences. (Intended primarily for non-science majors and B.A. degree candidates.)

ENGLISH 101 – English Composition I – 3 credit hours

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

(PR – ACT Verbal 18-27;450 on SAT or Eng 100)

ENGLISH 201 – English Composition II – 3 credit hours

Academic writing with an emphasis on research related writing and higher levels of critical thinking and reading. (Not open to Juniors and Seniors. (PR – ENG 101 or equivalent)

NUTRITION/DIET THERAPY 314 – Nutrition and Diet Therapy – 3 credit hours

Principles of human nutrition and their application to healthy individuals and to the treatment and prevention of disease.

(PR Nursing major) NOTE: This course must be taken at Marshall University.

PSYCHOLOGY 201 – General Psychology – 3 credit hours

Principles and methods in the scientific study of behavior.

PSYCHOLOGY 311 – Child Development – 3 credit hours

Psychological characteristics and personal and social problems of developmental periods.
(PR – PSY 201; 12 college credits at 100 level of higher)

SCHOOL OF NURSING
ADMINISTRATION, FACULTY, STAFF

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Eastern Kentucky University (Doctoral Student), Richmond, KY

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CFE Admissions Secretary	Melba Curry 304/526-1423
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Executive Director

email: mboard@wv.gov
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TELEPHONE:

(304) 558-3595

FAX: (304) 558-3666

STATE OF WEST VIRGINIA
BOARD OF EXAMINERS FOR REGISTERED PROFESSIONAL NURSES
101 Dec Drive, Suite 102
Charleston, WV 25311-1620

September 10, 2015

To Prospective Nursing Applicant:

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. While it would be nice to know this prior to making a decision to enter the program, obtaining that information is not possible under current West Virginia law.

The West Virginia Board of Examiners for Registered Professional Nurses (Board) makes decisions about licensure based upon a number of questions on the application and on an individual basis. The application (or the background screening) that indicates a criminal history is considered a non-routine application and must be reviewed by the Board staff and possibly referred to the Board's Disciplinary Review Committee (DRC).

Each application is reviewed on its own merits. The Board of Nursing has created guidelines for specific offenses to be approved in the Board office; however, the staff cannot make determinations in advance as laws and rules do change over time. Felony convictions, violent crimes, other more serious misdemeanors and repeat offenders are required to go before the DRC. Simple misdemeanors, such as some traffic violations, loitering and disturbing the peace can be approved by the disciplinary section of the Board. Any evidence of rehabilitation is important to the Board members when making a licensure decision.

Board applications require the applicant to provide the Board with an original certified copy of all court documents relative to a conviction. This means the applicant must go to the county or other appropriate authority where the conviction occurred and have the clerk of the court certify with a raised seal that the documents are a complete copy of the record. Applicants cannot pick and choose what documents are provided to the Board. A complete copy of the criminal record must be provided. The Board's applications require the applicant to provide a letter of explanation as to the events surrounding the conviction. This means the applicant must write in his/her own words what happened to cause the conviction.

Board applications also require an applicant who has a drug or alcohol problem to provide to the Board a copy of all treatment records. The applicant must sign a release with the treatment provider and have



DISCLOSURE/PROGRAM OUTCOMES

	CLASS OF MAY 2014	CLASS OF DEC. 2014	CLASS OF MAY 2015
NCLEX PASS RATE: ST. MARY'S	91.3%	95.8% (1 unknown)	97.92% (as of 7/30/2015 – 5 unknown)
NCLEX – STATE OF WV	83.51	90.98% (as of 6/20/2015)	90.98% (as of 6/20/2015)
NCLEX – NATIONAL	81.79	82.53% (as of 6/30/2015)	82.53% (as of 6/30/2015)
JOB PLACEMENT % (Percentage of graduates who have RN position 6 months after graduation)	93.03% (3 of 47 unknown)	98% (1 not looking; 2 unknown)	98% (1 looking; 1 not looking; 1 unknown)
PROGRAM COMPLETION % (% of students who completed program) 2 YEARS	59.68%	64.41%	69.84%
2 ½ YEARS	74.19%	74.58%	80.98% (Projected)
3 YEARS	79.03%	74.58%	87.3% (Projected)
PROGRAM SATISFACTION – EMPLOYER MEASURED 6 MONTHS POST GRADUATION (Scale: 1 = very satisfied; 5 = very dissatisfied)		Data unavailable	Data unavailable
PROGRAM SATISFACTION – ALUMNI MEASURED 6 MONTHS POST GRADUATION (Scale: 1 = very satisfied; 5 = very dissatisfied)	1.44	Data unavailable	Data unavailable

PROJECTED EXPENSES NURSING CLASSES ONLY

<u>FIRST SEMESTER</u> Tuition: 9 credits 2835 Uniform 150 Learning Resources 900 Background Check/Drug Screen <u>100</u> Total: 3985	<u>THIRD SEMESTER</u> Tuition: 13 credits 3780 Learning Resources 400 Background Check/Drug Screen <u>100</u> Total: 4280
<u>SECOND SEMESTER</u> Tuition: 12 credits 3780 Learning Resources 400 Background Check/Drug Screen <u>100</u> Total: 4280	<u>FOURTH SEMESTER</u> Tuition: 9 credits 2835 Learning Resources 150 Background Check/Drug Screen 100 Graduation Expenses <u>100 – 400</u> Total: 3185 - 3485

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 nursing courses to be taken at St. Mary's CFE. Students taking non-nursing courses at Marshall University will receive an invoice from MU for those courses.

Payment is expected on the designated due date. If payment is not received, additional late payment fees will be added, and students will not be allowed to take examinations and will receive an Incomplete until all fees are paid.

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.

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 roles 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 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 relative to previous knowledge and when learning is goal directed. The need and ability to learn continues throughout life. The role of the faculty in respiratory care education is to facilitate the students' learning experiences through systematic guidance in their endeavors to acquire those knowledge, skills and judgments necessary for competence in the practice of respiratory therapist.

The Bachelor of Science Degree in Respiratory Care is based on knowledge from the humanities and the natural, social, behavioral and respiratory therapist sciences. The Bachelor of Science Degree in Respiratory Care prepares a graduate whose practice is characterized by critical thinking, clinical competence, collaboration, 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

ORGANIZING FRAMEWORK

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

The major organizing concepts for the curriculum are person as 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 which 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 the start to finish in the respiratory care curricula.

The program of the respiratory care student 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 patients' life 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

CURRICULUM OBJECTIVES/STUDENT LEARNING OUTCOMES

Upon completion of the program, the graduate will:

I. ASSESSMENT

- Complete comprehensive assessments.

II. CLINICAL DECISION MAKING

- Utilize assessment data and evidence based information to make decisions that ensure safe, effective, individualized care.
- Evaluate effectiveness of care and modify patient care as needed.

III. CARING INTERVENTIONS

- Provide care that assists the patient in meeting needs.
- Implement caring behaviors that are nurturing, protective, compassionate and person-centered.

IV. TEACHING/LEARNING

- Implement an individualized teaching plan based on assessed needs of the patient and significant others.
- Provide assistive personnel with relevant instruction to support achievement of patient outcomes.

V. COLLABORATION

- Collaborate with the patient, significant others, and members of the health care team to plan, implement, and evaluate patient care.
- 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

- Assist the patient to achieve positive outcomes by effectively utilizing human, physical, financial, and technological resources.
- Utilize the management process (plan, organize, direct and control) to assist patients to interact effectively with the health care system.

VII. COMMUNICATION

- Communicate effectively with members of the health care team utilizing appropriate methods and skills.
- Utilize therapeutic communication skills when interacting with patients and significant others.

VIII. PROFESSIONAL BEHAVIORS

- Practice respiratory care within the ethical, legal and regulatory framework.

Approved: June 2007

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 to understand 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, proof read 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 manipulated 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 finger tips.

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.

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

Lifting: rarely up to 100 lbs.

Lifting: Rarely up to 100 lbs.

Carrying: Rarely up to 100 lbs.

Pushing: Rarely up to 100 lbs.

Bending/Stooping: Rarely

Crawling: Never

Reaching Above shoulder level: Rarely

Pushing/Pulling: Rarely

Sitting: Occasionally

Walking: Occasionally

Crouching: Rarely

Balancing: Never

Kneeling: Rarely

Standing: Occasionally

Climbing: Rarely

Environmental surroundings:

The environmental surroundings of a worker in this job description

100% of time spent INSIDE

0% of 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 two (122) credit hours. Seventy one (71) 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:

See next page.

St. Mary's/Marshall University
School of Respiratory Care
Curriculum

Year 1

Course	Hrs	Sem	Course	Hrs	Sem
BSC 227 – Human Anatomy	4	Fall	BSC 228 – Human Physiology	4	Spring
CHM 205 – General, Organic and Biochemistry	3	Fall	SOC 200 – Intro to Sociology	3	Spring
MTH 121 – Concepts & Application	3	Fall	HS 200 – Medical Terminology	3	Spring
ENG 101 – English Composition	3	Fall	Humanities Elective	3	Spring
FYS 100 – First Year Seminar	3	Fall	Fine Arts – ART 112, MUS 142, THE 112	3	Spring
Total Hours	16		Total Hours	16	

Year 2

Course	Hrs	Sem	Course	Hrs	Sem
BSC 250 – Micro/Human Disease	4	Fall	RSP 100 – Resp. Pharmacology	3	Spring
RSP 101 – Intro to Resp. Care	2	Fall	RSP 201 – Pulmonary Patho.	3	Spring
RSP 102 – Intro to Resp. Care Proc.	3	Fall	RSP 202 – Mech. Vent Tech & Mgt.	3	Spring
RSP 102L – Intro to Resp. Care Lab	1	Fall	RSP 203 – Respiratory Internship 1	4	Spring
PSY 201 – General Psychology	3	Fall	CMM 103 – Fundamentals of Speech	3	Spring
ENG 201 – English Composition	3	Fall			
Total Hours	16		Total Hours	16	

Year 3

Course	Hrs	Sem	Course	Hrs	Sem
RSP 212 – Acute/Chronic Resp. Mgt.	3	Fall	RSP 210 – Respiratory Internship III	3	Spring
RSP 206 – Neo/Pediatric Care	3	Fall	RSP 308 – Resp. Mgt. & Perform. Impr.	3	Spring
RSP 207 – Intro to Critical Care Mgt.	3	Fall	RSP 303 – Respiratory Education	3	Spring
RSP 208 – Respiratory Care Seminar	1	Fall	Statistics	3	Spring
RSP 209 – Resp. Internship II	3	Fall	Writing Intensive Elective	3	Spring
RSP 211 – Dynamics of Pulmonary	2				
Total Hours	15		Total Hours	15	

Year 4

Course	Hrs	Sem	Course	Hrs	Sem
RSP 302 – Respiratory Internship IV	2	Fall	RSP 402 – Respiratory Mgt.	3	Spring
RSP 304 – Adv. Neo/Peds. Critical Care	3	Fall	RSP 403 – Resp. Care Research	3	Spring
RSP 307 – Adv. Critical Care	4	Fall	RSP 404 – Advanced Practicum	3	Spring
RSP 401 – Intro. to Sleep Disorders	4	Fall	RSP 420 – Capstone in Resp. Care	5	Spring
Total Hours	13		Total Hours	14	

Total Credit Hours 121

COURSE DESCRIPTIONS: SCHOOL OF RESPIRATORY CARE

PR – Pre-requisite

CR – Co-requisite

RESPIRATORY 100, RESPIRATORY PHARMACOLOGY, 3 Credits

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

(PR – FYS 100; ENG 101; CHM 205; MTH 121; BSC 227; PSY 201; SOC 200; HS 200; BSC 250)

RESPIRATORY 101, INTRODUCTION TO RESPIRATORY CARE, 2 Credits

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.

(PR – YEAR ONE OF PROGRAM)

RESPIRATORY 102, INTRODUCTION TO RESPIRATORY CARE PROCEDURES, 3 Credits

Didactic theory on 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.

(PR – YEAR ONE OF PROGRAM CR – RSP 102L; 101)

RESPIRATORY 102L, RESPIRATORY PROCEDURES LAB, 1 Credit

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.

(PR – YEAR ONE OF PROGRAM CR – RSP 101; RSP 102)

RESPIRATORY 200B, CONCEPTS OF PROFESSIONAL RESPIRATORY CARE, 5 Credits

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

(PR – CRT and Admission to the program)

RESPIRATORY 201, PULMONARY PATHOPHYSIOLOGY, 3 Credits

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

(PR – RSP 101; RSP 102; RSP 102L CR- RSP 100)

RESPIRATORY 202, MECHANICAL VENTILATION TECHNOLOGY AND MANAGEMENT, 3 Credits

An introduction to the fundamentals of mechanical ventilation techniques and terminology. Monitoring and the ability to solve clinical problems relating to mechanical vitalization is emphasized.

(PR – RSP 101; RSP 102; RSP 102L CR – RSP 201; RSP 203)

RESPIRATORY 203, RESPIRATORS INTERNSHIP I, 4 Credits

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

(PR – RSP 101; RSP 102; RSP 102L CR – RSP 201; RSP 202; BSC 250)

RESPIRATORY 206, NEONATAL/PEDIATRIC CARE, 3 Credits

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

(PR – RSP 100; RSP 201; RSP 202; RSP 203: CR – RSP 205; RSP 207; RSP 208; RSP 209; RSP 211)

RESPIRATORY 207, INTRODUCTION TO CRITICAL CARE MANAGEMENT, 3 Credits

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

(RSP 100; RSP 201; RSP 202; RSP 203 CR – RSP 205; RSP 207; RSP 208; RSP 209; RSP 211)

RESPIRATORY 208, SEMINAR IN RESPIRATORY CARE, 1 Credit

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

(PR – Sophomore level in Respiratory Care program)

RESPIRATORY 209, RESPIRATORY INTERNSHIP II, 3 Credits

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

(PR – Sophomore level in SORC CR – RSP 205; RSP 206; RSP 207; RSP 208 RSP 290; RSP 211)

RESPIRATORY 210, RESPIRATORY INTERNSHIP III, 3 Credits

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

(PR – RSP 205; RSP 206; RSP 207; RSP 208; RSP 209; RSP 211)

RESPIRATORY 211, DYNAMICS OF PULMONARY AND RENAL INTERACTION, 2

Credits

Emphasis is placed on the interaction of systems in gas exchange and renal involvement in acid-base balance.

(PR – Sophomore level in SORC CR – RSP 210)

RESPIRATORY 212, ACUTE/CHRONIC RESPIRATORY MANAGEMENT Credit

Emphasis on the care of the patient with long term pulmonary disability requiring home care.

Psychosocial and physical needs are addressed with emphasis of quality of life and cardiopulmonary reserve.

(CR –RSP 201; RSP 202; RSP 203)

RESPIRATORY 302, RESPIRATORY INTERNSHIP IV, 2 Credits

Emphasis is on cardiopulmonary assessment and treatment of trauma, post-surgical, cardiac, renal, neonatal and pediatric patients with refinement of monitoring procedures and interpretation of data.

(PR – Junior level in SORC)

RESPIRATORY 303, CLINICAL RESPIRATORY EDUCATION, 3 Credits

Designed as an introduction to clinical teaching in a respiratory care program. Emphasis is on instructional and evaluation strategies and development of performance objectives.

(PR - Junior level in SORC)

RESPIRATORY 304, ADVANCED NEONATAL AND PEDIATRICS, 2 Credits

Advanced study of neonatal/pediatric pathophysiology, including parenchymal disease, obstructive airway disease, lesions of the lungs and airways, congenital abnormalities, respiratory distress syndrome, apnea disorders, neurological disorders and trauma.

(PR – RSP 206; Junior Level or RRT)

RESPIRATORY 307, ADVANCED TECHNIQUES IN ADULT CRITICAL CARE,

4 Credits

Emphasis is on current respiratory care procedures for the critically ill adult patient with exploration into newer techniques.

(PR – RSP 207 or RRT CR – Junior Level in SORC)

RESPIRATORY 308, RESPIRATORY MANAGEMENT & PERFORMANCE IMPROVEMENT

3 Credits

Introduces the student to the basic principles of management in the respiratory care department.

Includes theory, scope of management, quality issues, budgeting, personnel issues, evaluation and application of management concepts.

(PR – Junior level in SORC)

RESPIRATORY 401, INTRODUCTION TO SLEEP DISORDERS, 4 Credits

Designed to teach how a polysomnogram is performed, the major categories of sleep disorders, the presenting symptoms of sleep apnea, narcolepsy, psycho physiological insomnia and sleep disturbance due to depression.

(CR – RSP 307)

RESPIRATORY 403, RESPIRATORY CARE RESEARCH, 5 Credits

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

(PR – Statistics course)

RESPIRATORY 404, ADVANCED RESPIRATORY CARE PRACTICUM, 3 Credits

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

(PR – Senior Level in SORC)

RESPIRATORY 420, CAPSTONE IN RESPIRATORY CARE, 5 Credits

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

(CR – RSP 405)

RESPIRATORY 408-483, SPECIAL TOPICS, 4 Credits

Study of topics not available in other course.

RESPIRATORY 485-588, INDEPENDENT STUDY, 4 Credits

Open only to Respiratory Care majors of outstanding ability. By permission only.

RESPIRATORY 495H-496H, READING FOR HONORS IN RESPIRATORY CARE,
4 Credits

Open only to Respiratory Care majors of outstanding ability. By permission only.

Faculty

Dr. Shelia M. Kyle, MSN, EdD, RN
Vice President Schools of Nursing and Health Profession
Marshall University, Huntington, WV
University of Kentucky, Lexington, KY
West Virginia University, Morgantown, WV

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

Christopher Henderson, RRT, B.A., MS SL
University of Charleston, Charleston, WV
WVU Institute of Technology, Montgomery, WV

Courtney Hieronimus, RRT, BSRT, MEd
St. Mary's School of Respiratory Care, Huntington, WV
Marshall University, Huntington, WV

Keith Terry, MS, RN, RRT
St. Mary's School of Nursing, Huntington, WV
Marshall University, Huntington, WV
Mountain State University, Beckley, WV
Shawnee State University, Portsmouth, OH

Chris Trotter, B.A., MS, RRT
University of Charleston, Charleston, WV
Tiffin University, Tiffin, OH

STAFF

CFE Administrative Secretary	Paula Cremeans, 304/526-1426
CFE Admissions Secretary	Melba Curry, 304/526-1423
CFE Business Office Secretary	Brandi Weekley, B.A. 304/526-1435

DISCLOSURE FORM

Respiratory Care

Program outcomes may be obtained by going to www.coarc.com and clicking on the link program outcomes

PROJECTED EXPENSES

Projected expenses apply to SORC courses only at the CFE.

Respiratory Care

FALL SEMESTER SOPHMORE YEAR

Tuition – 6 credits	\$1,890
Books/Supplies	1,300
Lab Kit	200
Uniform	300
Background Check/ Drug Screen	<u>100</u>
Total	\$3,790

SPRING SEMESTER SOPHMORE YEAR

Tuition – 13 credits -	\$4,095
	500
Total	<u>\$4,595</u>

FALL SEMESTER JUNIOR YEAR

Tuition – 15 credits	\$4,725
Books/Supplies	500
Background Check/Drug Screen	<u>100</u>
Total	\$5,325

SPRING SEMESTER JUNIOR YEAR

Tuition – 9 credits -	\$2,835
	500
Total	<u>\$3,335</u>

FALL SEMESTER SENIOR YEAR

Tuition – 13 credits	\$4,095
Books/Supplies	1,000
Background Check/Drug Screen	<u>100</u>
Total	\$5,195

SPRING SEMESTER SENIOR YEAR

Tuition – 14 credits -	\$4,410
	1,000
Graduation Fees	<u>300</u>
Total	\$5,710

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).

Commission on Accreditation for Respiratory Care
1248 Harwood Road
Bedford, Texas 76021-4244
(817) 283-2835

SCHOOL OF MEDICAL IMAGING

PROGRAM OVERVIEW

PROGRAM OVERVIEW

The School of Medical Imaging (SOMI) is a thirty-six month program designed to prepare the student for entry and professional level employment as a radiographer/sonographer. 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 either the entry-level American Registry of Radiologic Technologists (ARRT) Certification examination or the physics and a specialty exam administered by the American Registry of Diagnostic Medical Sonography (ARDMS) depending upon the imaging track pursued. Students in the radiography tracks will also be didactically prepared for an advanced practice modality in imaging. 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 completed within 24 months of submitting an application. Since 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 four years (forty-eight 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

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

SCHOOL OF MEDICAL IMAGING GOALS

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 and the Joint Review Committee in Diagnostic Medical Sonography, 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. Students interested in reviewing the program's Assessment Plan or Annual Report should contact the Program Director.

Program Goals

- I. **Goal: The program will graduate competent imaging professionals to meet community healthcare needs**
Program Effectiveness Outcomes
 - A. ARRT/ARDMS pass rate
 - B. Retention
 - C. Job placement
 - D. Employer satisfaction
 - E. Graduate satisfactionStudent Learning Outcome:
 - A. *Students will demonstrate technical proficiency*
 1. Students will be technically competent
 2. Students will demonstrate procedural competence
 - B. *Students will practice ALARA (As Low As Reasonably Achievable) principles*
 - C. *Students will demonstrate fluency in the use of tools, technologies and methods common to the field*
 1. Students will demonstrate proper equipment operation/care
- II. **Goal: Graduates will develop analytical and critical thinking skills**
Student learning outcome:
 - A. *Students will demonstrate analytical inquiry through practical approaches to problem solving*
 1. By making procedural adjustments to individual patients as needed
 2. By demonstration of image analysis methods
 - B. *Students will demonstrate critical thinking skills in the use of information resources*
 1. Students will critically analyze written materials from diverse sources
 2. Students will demonstrate knowledge of evidence based practice in medical imaging
 - C. *Students will demonstrate quantitative literacy (QL) skills*
 1. Students will demonstrate the ability to reason and solve quantitative problems from a wide array of contexts and everyday "life" situations.
- III. **Goal: The graduate will model professionalism**
Student learning outcome:
 - A. *Students will recognize the need for and the ability to engage in life-long learning*
 - B. *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.*
- IV. **Goal: Graduates will exhibit effective communication skills in the healthcare setting**
Student learning outcome:
 - A. *Students will demonstrate communication fluency by engaging in diverse perspectives*
 1. Students will be competent in oral and written communication
 2. Students will effectively engage with patients, staff and other members of the healthcare team

Revised: 3/2004; 6/2005; 8/2007; 3/2010; 8/2012, 5/13, 7/14

Admissions

Students must apply to and be accepted into the Marshall University College of Health Professions. Acceptance into the COHP does not guarantee acceptance into the SOMI. Separate application is made to SMMC between January 1 and April 1 of each year. Applications may be **downloaded from our website** (along with a **Technical Standards Declaration**), www.st-marys.org, or requested by calling or writing to the following:

St. Mary's Medical Center
School of Medical Imaging
2900 First Ave.
Huntington, WV, 25702
(304) 526-1259
rfisher@st-marys.org

**** 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. ****

The application must include high school and college transcripts and a signed Technical Standard Review Declaration Form and evidence of a minimum of 8 hours of observation in a hospital radiography department. A minimum ACT score of 19 on composite, math and science will improve an applicant's chances of being accepted into the program. Minimum requirements for consideration are:

1. A thirty (\$30) dollar, non-refundable, application fee.
2. High school diploma or successful completion of the GED.
3. A minimum of 18 college credits consisting of the courses listed in #4 (100 level courses or higher) from a regionally accredited institution must be completed or in progress prior to applying to the program.
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).
 - o MAT 121 or higher College Algebra *
 - o PHY 101 Introductory Physics (or higher) *
 - o PHY 101L Physics Lab*
 - o BSC 227 Human Anatomy*
 - o BSC 228 Human Physiology*
 - o Medical Terminology
5. A minimum of eight (8) hours of professional observation within a hospital radiography department. Please contact 304-526-8328 if you wish to do observation at SMMC.
6. Students must also complete a course in statistics prior to the spring of the senior year with a grade of C or better.

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. Points are awarded for a GPA of 2.5 or greater.

**** Any substitution or variation of pre-requisite course work requires special permission of Program Director****

Applicants are scored and ranked based on overall college GPA, course grades in prerequisite courses and selected additional science course work (e.g., cell biology, general or organic chemistry) 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 reading comprehension components. Positions are offered to the top twenty-four 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.

Students accepted into the program that wish to pursue the sonography track, may make separate application to the sonography track by April 1 of the sophomore year. 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.

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

DISCLOSURE FORM - SOMI

	CLASS 2011	CLASS 2012	CLASS of 2013	CLASS of 2014	Class of 2015
PERCENT PASSING BOARDS - SMMC	93	100	92	88.8	81
PERCENT PASSING BOARDS - WV	NA	NA	NA	90.7	89
PERCENT PASSING BOARDS - NATIONAL	92.7	93	89.6	88.9	88.4
PROGRAM COMPLETION RATE	87.7%	98%	100%	94%	92%
PROGRAM SATISFACTION RATE	91%	100%	100%	98%	99%
PROGRAM JOB PLACEMENT	91%	91%	63%	90%	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 SMMC-SOMI. Students who receive financial aid from Marshall may receive fall aid by August, but must contact the Financial Aid office early in order to do so. Students may be granted a short-term extension in fee payment under extenuating circumstances.

PROJECTED EXPENSES

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

FALL SEMESTER YEAR I		SPRING SEMESTER YEAR I
Tuition - credit	\$4000	\$4000
Books/Supplies	800	<u>100</u>
Uniform	200	
Background Check/ Drug Screen	<u>100</u>	
Total	\$5100	Total \$4100
YEAR II		
Tuition - credit	\$4000	\$4000
Books/Supplies	200	<u>100</u>
Drug Screen	<u>100</u>	
Total	\$4300	Total \$4100
YEAR III		
Tuition - credits	\$4000	\$4000
Books/Supplies	200	100
Drug Screen	<u>100</u>	Graduation exp <u>200</u>

Total \$4300

Total \$4300

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

Faculty

Shelia M. Kyle, EdD, MSN, RN

Vice President Schools of Nursing and Health Professions

Marshall University, Huntington, WV

University of Kentucky, Lexington, KY

West Virginia University, Morgantown, WV

Rita Fisher, PhD, RT(R)(CT)(CVI) (ARRT)

Director, School of Medical Imaging
 School of Radiology, Baptist Medical Center, Little Rock, AR
 University of Arkansas at Little Rock, Little Rock, AR
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STAFF

CFE Administrative Assistant	Paula Cremeans 304/526-1426
CFE Admissions Secretary	Melba Curry 304/526-1423
CFE Business Office Secretary	Brandi Weekley, B.A. 304/526-1435

Curriculum:

Students in the SOMI have several choices regarding curriculum tracks. All sophomore (year 2) students follow the same first semester curriculum. At the end of the fall semester sophomore year, students may elect to continue in the radiography track or apply to the sonography track. Sonography will be limited enrollment and selection criteria are primarily based on MI coursework GPA. In the event of a tie, MU science courses and MU GPA will be used as the determining factor. Senior students (year 4) in either sonography or radiography have additional options. Radiography students will select from one of six advanced modality tracks. Sonography will select ABD/OB-GYN or Vascular/Echo. General Education requirements from Marshall University may change. Students should consult with the College of Health Professions at MU to determine any general education requirements. Students are required to complete both MU and SMMC graduation requirements prior to receiving their certificate from SMMC. After January 2015, applicants to the ARRT certification exam must also have the minimum of an AAS degree. The BS degree also meets an ARDMS requirement. Registered technologists wishing to complete the BSMI degree may enter the program in the fourth year.

BS MI Core Curriculum: General Ed requirements in (red) Program prerequisites in (blue)			
Year 1 Fall		Year 1 Spring	

Course	Credit	Course	Credit
BSC 227 Human Anatomy	4	BSC 228 Human Physiology (Nat science)	4
Communication: Course	3	PHY 101 Conceptual Physics	3
Medical Terminology (CT)	3	PHY 101L Conceptual physics lab	1
ENG 101 English Composition I (or equivalent) (composition)	3	Social Science Course	3
MTH 121 or higher NOT MTH 125 (mathematics)	3	FYS 100 First Yr Sem Critical Thinking	3
		Composition: English 201	3
Total	16	Total	17
Admission to MI program between year 1 and 2			
Year 2 Fall		Year 2 Spring	
MI 201 Introduction to Radiography	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 Imaging Equip	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	Humanities Course	3
Total	18	Total	17
Summer Clinical Elective for radiography or sonography			
MI 213	4		
Total	4		
Year 3 Fall RADIOGRAPHY		Year 3 Spring	
MI 302 Princ of Radiation Physics	3	MI 307 Rad Protection	3
MI 303 Image Acquisition	3	MI 308 Rad Image Analysis	2
MI 304 Radiographic Pathology	3	MI 309 Digital Image Acquisition	2
MI 305 Clinical Practice IV	4	MI 310 Clinical Practice V	4
MI 306 Seminar Imaging Sciences	1	MI 311 Seminar Imaging Sciences	1
MI 321 Procedures III	3	Statistics	3
Total	17	Total	15
Summer Clinical Elective for radiography or sonography			
MI 320	4		
Total	4		
Year 4 Radiography Professional Level: Students will select one of the following areas of emphasis			
Computed Tomography/Magnetic Resonance Imaging, Cardiovascular/Interventional, Mammography or Management			
CT/MRI Elective Track			
Year 4 Fall		Year 4 Spring	
MI 402 Quality Management	3	MI 401 Seminar in Imaging Sci	1
MI 403 Adv Practice Medical Img (Writing intensive)	3	MI 404 Advanced Sectional Anatomy	3
MI 405 CT Equip and Proc	3	MI 410 Research Medical	3

or MI 406 MRI Equip and Proc		Imaging (Capstone)	
MI 409 Adv Clinic I	4	MI 411 Transcultural Healthcare (Writing intensive, multicultural)	3
MI 428 Forensic Radiography (Elective)	3	MI 426 Adv Clinical Practice II	4
Fine arts	3		
Total	16-19	Total	14
Cardiovascular/Interventional Radiology Track			
Fall		Spring	
MI 402 Quality Management	3	MI 401 Seminar in Imaging Sci	1
MI 403 Adv Practice Medical Img (Writing intensive)	3	MI 407 Cardiovascular Anatomy	3
MI 408 Cardiovascular Imaging	3	MI 410 Research Medical Imaging (Capstone)	3
MI 409 Adv Clinical Practice I	4	MI 411 Transcultural Healthcare (Writing intensive, multicultural)	3
MI 428 Forensic Radiography (Elective)	3	MI 426 Adv Clinical Practice II	4
Fine arts	3		
Total	16-19	Total	14
Mammography Track Fall**			
MI 402 Quality Management	3	MI 401 Seminar in Imaging Sci	1
MI 403 Adv Practice Medical Img (Writing intensive)	3	MI 410 Research Medical Imaging (Capstone)	3
MI 414 Mammography I	3	MI 411 Transcultural Healthcare (Writing intensive, multicultural)	3
MI 409 Adv Clinical Practice I	4	MI 426 Adv Clinical Practice II	4
MI 428 Forensic Radiography (Elective)	3	MI 430 Mammography II	3
Fine arts	3		
Total	16-19	Total	14
Management Track Fall			
MI 402 Quality Management	3	MI 401 Seminar in Imaging Sci	1
MI 403 Adv Practice Medical Img (Writing intensive)	3	MI 410 Research Medical Imaging (Capstone)	3
MI 412 Radiography Management I	3	MI 411 Transcultural Healthcare (Writing intensive, multicultural)	3
MI 409 Adv Clinical Practice	4	MI 413 Radiography Management II	3
MI 428 Forensic Radiography (Elective)	3	MI 415 RIS and PACS Technology	3
Fine arts	3	MI 426 Adv Clinical Practice II	4
Total	16-19	Total	17
Adv Diagnostic Rad Fall			
MI 402 Quality Management	3	MI 401 Seminar in Imaging Sci	1
MI 403 Adv Practice Medical Img (Writing	3	MI 410 Research Medical Imaging (Capstone)	3

intensive)			
MI 409 Adv Clinical Practice	4	MI 411 Transcultural Healthcare (Writing intensive, multicultural)	3
MI 427 Adv Trauma-Surgical Radiography	3	MI 426 Adv Clinical Practice II	4
MI 428 Forensic Radiography (Elective)	3	MI 429 Geriatric/Pediatric Radiography	3
Fine arts	3		
Total	16-19		14
YEAR Three SONOGRAPHY Students may select General Sonography or Cardiovascular Sonography area of emphasis by the spring semester of the junior year			
Fall (General Sonography)		Spring (General Sonography)	
MI 312 Abdominal Sonography I	4	MI 416 Obstetrical sonography I	3
MI 313 Ultrasound Physics I	3	MI 316 Abdominal Sonography II	3
MI 314 Clinical Practice I Sonography	4	MI 317 Ultrasound Physics II	3
MI 318 Vascular I	3	MI 319 Clinical Practice II Sonography	4
MI 306 Seminar Imaging Science	1	MI 311 Seminar Imaging Science	1
MI 315 Small Parts	3	Statistics	3
Total	18	Total	17
Year Three Cardiovascular		Spring (Cardiovascular)	
MI 312 Abdominal Sonography I	4	MI 316 Abdominal Sonography II	3
MI 313 Ultrasound Physics I	3	MI 317 Ultrasound Physics II	3
MI 314 Clinical Practice I Sonography	4	MI 319 Clinical Practice II Sonography	4
MI 318 Vascular I	3	MI 311 Seminar Imaging Science	1
MI 306 Seminar Imaging Science	1	MI 424 Vascular II	3
MI 315 Small Parts	3	MI 407 Cardiovascular anatomy	3
Statistics	3		
Total	18-21		17
Year Four			
General Sonography Track Fall		Spring	
MI 403 Adv Practice Med Imaging (WAC)	3	MI 410 Research Medical Imag (Capstone)	3
MI 420 Obstetrical Sonography II	2	MI 411 Transcultural Healthcare (WAC/MC)	3
MI 417 Gynecological Sonography I	3	MI 421 Gynecological Sonography II	2
MI 419 Clinical Practice III Sonography	4	MI 422 Clinical Practice IV Sonography	4
Fine arts	3	MI 401 Registry Review	1
Total	15	Total	13
Cardiovascular Sonography Track Fall		Spring	
MI 403 Adv Practice Med Imaging (WAC)	3	MI 410 Research Medical Imag (Capstone)	3
MI 419 Clinical Practice	4	MI 411 Transcultural	3

III Sonography		Healthcare (WAC/MC)	
MI 423 Echasonography I	3	MI 407 Cardiovascular Anatomy	3
MI 428 Forensic Radiography (Elective)	3	MI 401 Registry Review	1
Fine arts	3	MI 422 Clinical Practice IV Sonography	4
		MI 425 Echasonography II	3
Total	13-16	Total	17
Summer Clinical Elective for radiography or sonography			
MI 431	4		
Total	4		

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, BSC 228; 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, BSC 228, 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, BSC 228, 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, 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 213-Elective Clinical Practicum 1 (4 Hr) Summer Intercession**

Elective clinical practicum in radiography or sonography

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, BSC 228, 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 – Radiation Protection and Radiobiology (3 Hr) Fall

Content is designed to present an overview of the principles of radiation protection, including the responsibilities of the radiographer for patients, personnel and the public. Radiation health and safety requirements of federal and state regulatory agencies, accreditation agencies and health care organizations are incorporated. 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, BSC 228, CHM 203, MI 302.

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 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.

MI 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.

MI 314-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 315-Small Parts Sonography (3 Hr) Fall

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

MI 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.

MI 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. This is a continuation of MI 313 Ultrasound Physics I

MI 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 319-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 320-Elective Clinical Practicum II (4 Hr) Summer Intercession

Elective clinical practicum in radiography or sonography.

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 402 – Quality Management (3 Hr) Fall

This course is a core requirement for all students regardless of the Advanced Practice track. Quality management is important to ensure the proper functioning of equipment and compliance with government and accreditation standards. Thus, technologists should have an understanding of the activities and their role in the quality management (QM) process. This content is designed to expand the QM skills of the technologist to include digital imaging systems and the application of QM principles in an imaging department. Course will include review of the ARRT Post-primary exam in QM. Students who select the management track will be expected to initiate procedures outlined in the QM exam content. Candidates for the ARRT Advanced Practice exam are required to perform the required number of repetitions for each procedure. Repetitions must be performed within the 24 month period immediately before submitting the application for certification. Repetitions may be completed in less than 24 months.

PR: ARRT

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 412 – Radiography Management I (3 Hr) Fall

Course will provide radiographers with management principles pertinent to medical imaging, including imaging departmental accreditation.

MI 413 – Radiography Management II (3 Hr) Spring

Continuation of MI 412 to provide radiographer with management principles related to medical imaging.

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 416-Obstetrical Sonography I (3 Hr) Fall

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

MI 417-Gynecological Sonography I (3 Hr) Fall

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

MI 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.

MI 419-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 420-Obstetrical Sonography II (2 Hr) Spring

This course focuses on sonographic techniques in high risk pregnancies and fetal abnormalities.

MI 421-Gynological Sonography II (2 Hr) Spring

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

MI 422-Clinical Practice IV 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 423-Echsonography I (3 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.

MI 424-Vascular Sonography II (3 Hr) Fall

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

MI 425-Echsonography II (3 Hr) Spring

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

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 428-Forensic Radiography (3 hr) Spring (Elective for all imaging tracks)

This course will focus on introducing forensic radiography techniques and theoretical models.

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 433-Point of Care Ultrasound (3 hr) Fall Elective

This course will introduce the basic principles of point of care ultrasound for vascular and cardiac interventional radiography and mammography.

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 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

MI 480 – 483 Special Topics (1-4 Hr) Fall, Spring

Course will cover special topics in medical imaging.

MI 485 – 488 Independent Study (1-4 Hr) Fall, Spring

Course will provide imaging student the opportunity to pursue independent study.