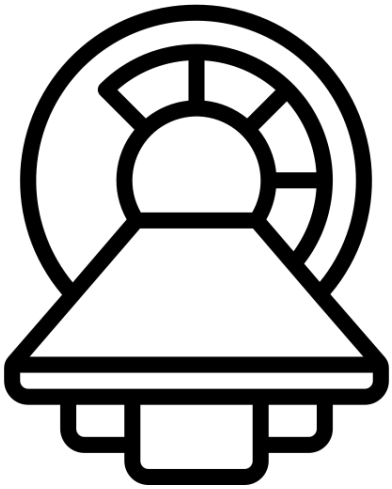


Magnetic Resonance Imaging Program Handbook

Forsyth Technical Community College
2100 Silas Creek Parkway
Winston-Salem, NC 27103
(336) 723-0371

www.forsythtech.edu

Forward

Welcome to the Forsyth Tech MRI program. We are excited you are here and ready to explore the world of MRI technology. This handbook is a guide to our profession, accreditation, program policies, and general information. Please read and familiarize yourself with these important documents. If you have any questions or concerns, please reach out to one of the faculty who are here to help you.

The MRI program combines classroom instruction, lab practice sessions, and clinical rotations in hospitals and clinics. This allows the student to learn in a variety of settings using a diverse range of mediums. Many of our students find employment opportunities in sites they have done clinical rotations, and we have a symbiotic relationship with our partner hospital and clinic systems.

Students will complete courses in MRI Physics, Procedures, Anatomy & Pathology, Ethics, Patient Care, and Fundamentals of Imaging. The courses span 5 semesters, with students earning an AAS in Magnetic Resonance Imaging. Our program is regionally accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) and our students are eligible to sit for the American Registry of Radiological Technologist (ARRT) national board exam upon graduation. (https://www.arrt.org/)

Forsyth Tech is committed to your education, and eventual employment in the ever changing and growing field of Magnetic Resonance Imaging. We encourage your questions, comments, and feedback as you progress through this curriculum.

Table of Contents

SECTION I

GENERAL INFORMATION

1.1 MR Imaging Technology Programs

The handbook contains specific information for use by students in the Associate in Applied Science Magnetic Resonance Imaging Program and/or Diploma Program. For general Forsyth Tech policies, please reference the link for Student Services, https://www.forsythtech.edu/student-resource-guide/. There is a wealth of information and resources available. We encourage students to reach out to either your instructor, program coordinator, or the Forsyth student services with any question or concern. Also, policies change from time to time, you may need to refresh your information as situations arise.

1.2 Equal Opportunity and Inclusion

Diversity and inclusiveness are foundational Forsyth Tech values. We are an Affirmative Action, Equal Opportunity, and ADA Section 504 institution and do not discriminate based on race, sex, color, age, religion, national origin, disability, or political affiliation towards its students, employees, or applicants for admission or employment. The International Center of Forsyth Tech is a welcoming, multi-faceted learning and guidance center for internationals, immigrants, refugees, and the community. It serves as an academic and professional resource to the college, business community and internationals on matters of education, cultural awareness, integration, job assistance, and support services. https://www.forsythtech.edu/the-international-center/)

1.3 Admission and Transfer Policies:

The MRI Program is using an admission process that incorporates a variety of aptitudes and skills. We believe the more holistic application process will lead to a resilient student who is poised for success.

Our admissions process is competitive with our 2-year degree program beginning new classes each fall. Resources, such as clinical facilities and faculty, as well as approval standards limit the number of applicants admitted to the program to 12 students. All applicants must meet minimum requirements to be considered for admission. For further information please follow the below link for our Minimum Admissions Requirements (MAR):
https://www.forsythtech.edu/programs/magnetic-resonance-imaging/

Transfer of credit from prior institutions is permitted if those credits are

applicable to our requirements and compliant with all state and federal regulations. For questions about credit transfer please see the link below or reach out to the admissions department.
https://www.forsythtech.edu/students/apply/transcripts/

Tuition and financial aid are available, and these policies are outlined in the FTCC student handbook. Partial refunds are available to students who drop courses with a prorated deadline. Please read and understand the Drop/Add policies as well as important calendar dates at the link below:
https://www.forsythtech.edu/events/category/academic-calendar/

1.4 Mission Statement

The mission of this program is to involve the student in the active learning process through diverse educational experiences that include classroom, laboratory, and clinical education with the result being a professional entry-level Magnetic Resonance Imaging Technologist that values teamwork and continues life-long learning.

1.5 Program Goals and Student Learning Outcomes

Goal 1: Students will demonstrate entry-level clinical competence in MRI.

Student Learning Outcomes:

- Students will position patient according to correct landmarks.
- Students will select image parameter according to protocol.
- Students will utilize MRI safety measures during all clinical duties.

Goal 2: Students will demonstrate effective communication skills.

Student Learning Outcomes:

- Students will demonstrate effective written communication skills.
- Students will demonstrate effective oral communication skills.
- Students will demonstrate the ability to communicate with patients and staff during clinical rotations.

Goal 3: Students will develop problem solving/critical thinking skills.

Student Learning Outcomes:

- Students will adapt imaging parameters for optimum image quality.
- Students will analyze images for diagnostic quality.

Goal 4: Students will model professionalism.

Student learning Outcomes:

- Students will demonstrate professional behavior.
- Students will summarize the value of life-long learning.
- Students will understand ethical behavior.

Assessment of these goals is done in a variety of ways. Clinical evaluations, instructor and preceptor direct supervisions, competency, and laboratory checks, as well as didactic classes and testing. Each student is encouraged to check in often and reach out to faculty and staff with any questions or concerns.

1.6 History

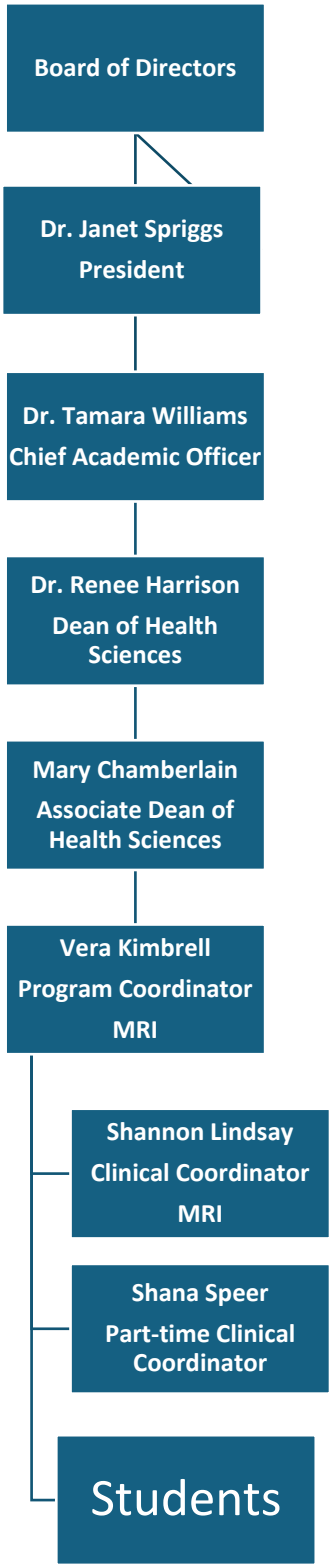
Forsyth Technical Community College can trace its beginning to early adult and high school vocational courses which were available in Winston-Salem. In 1958, a Chamber of Commerce Study Committee recommended that an Industrial Education Center be built to provide the trade and technical training needed by local industry. A bond issue provided the money to start construction of two buildings late in 1959 and the first adult classes began in October of 1960. In 1963, a third building was constructed, and new technical programs were added. That same year the North Carolina legislature passed the Community College Act, creating a statewide system of Community Colleges, Technical Institutes, and Industrial Education Centers. In January 1964, the name of the school was changed to Forsyth Technical Institute. The operation of the school was transferred from the Winston-Salem/Forsyth County Schools to a local Board of Trustees who has continued to govern the College following policies established by the State Department of Community Colleges.

In 1972, Forsyth Technical Institute acquired the two existing Radiologic Technology Programs in Winston-Salem, one from Forsyth Memorial Hospital and the other from North Carolina Baptist Hospital. Nuclear Medicine Technology also joined the FTI programs. These two hospitals have continued to provide clinical affiliations and adjunct faculty for the Program. The third clinical affiliate, High Point Regional Hospital was added in March 1989. The MR clinical affiliates are now in a wide variety of counties. The College provides instructional personnel.

In July 1985, the Board of Trustees and the Forsyth County Board of Commissioners approved the name change for the College from Forsyth Technical Institute to Forsyth Technical College. In 1988, the name was again changed to the present name for the College, Forsyth Technical Community College.

In 1989, Radiation Therapy and Medical Sonography Programs joined the Allied Health Programs as a part of the Health Technologies Division of Forsyth Technical Community College and in 1992 Cardiovascular/Vascular Interventional and MRI Programs began. Forsyth Tech is accredited by the Southern Association of Colleges and Schools and is approved by the North Carolina Board of Education. The AAS MRI program is also recognized by the American Registry of Radiologic Technologists.

1.7 Organization Chart



1.8 Instructional Faculty

Vera Kimbrell, M Ed, RT (R) (MR)
Program Coordinator
W230 Bob Greene Hall
Office: (336) 734-7286
Cell: (781) 690-9853
vkimbrell@forsythtech.edu

Shannon Lindsay, BA, MR
Clinical Coordinator
W228 Bob Green Hall
Cell-804-548-3149
slindsay@forsythtech.edu

Shana Speer, RT MR
Part-time clinical coordinator
Cell: 336-909-5104
scline@forsythtech.edu

1.9 Faculty Descriptions

Program Coordinator/Director

A campus faculty member that will be responsible for the organization, supervision, and operations of the overall program. The program director is responsible for the following:

- Assuring effective program operations
- Overseeing ongoing program accreditation and assessment processes
- Participating in budget planning
- Participating in didactic and/or clinical instruction, as appropriate
- Maintain current knowledge of the professional discipline and educational methodologies through continuing professional development
- Assuming the leadership role in the continued development of the program
- Curriculum design
- Evaluation of faculty
- Conducts on-going program effectiveness
- Evaluates and assures clinical education effectiveness
- Advisement of students
- Serve on committees

Clinical Coordinator

A campus faculty member that will be responsible for the organization, supervision, and coordination of the clinical education courses in each of the clinical affiliates.
The clinical coordinator is responsible for the following:

- Correlating and coordinating clinical education with didactic education and evaluating its effectiveness.
- Participating in didactic and/or clinical instruction.
- Supporting the program director to assure effective program operations.
- Participating in the accreditation and assessment processes.
- Maintaining current knowledge of professional discipline and educational methodologies through continuing.
  professional development.
- Maintaining current knowledge of program policies, procedures, and student progress.
- Evaluates competencies, advises, and counsels students.
- Periodically assists Program Coordinator in review and revision of clinical course materials.
- Serves as a liaison between the campus and clinical affiliates and facilitates communication between the clinical.
  affiliates and the college.
- Supervises and assists the clinical instructor/preceptor as needed with scheduling, instruction, etc.
- Observes and visits students in the clinical setting during clinical educational experience.
- Advisement of students.
- Serve on committees.

Clinical Instructor/coordinator (part-time)

A part-time clinical instructor/preceptor will be responsible for:

- Maintaining knowledge of program mission and goals.
- Understanding the clinical objectives and clinical evaluation system and evaluating students' clinical competence.
- Providing students with clinical instruction and supervision.
- Participating in the assessment process, as appropriate.
- Maintaining current knowledge of program policies, procedures, and student progress and monitoring and enforcing program policies and

procedures.
• Ensure that students follow clinical affiliates, program, and college policies and procedures.
• Supports the clinical coordinator and program director to help assure effective program operation.

1.10 Clinical Education Affiliations:

Atrium Health Wake Forest Baptist Outpatient Imaging Center Kernersville	**861 Old Winston Rd. STE 101, Kernersville, NC 27284**	**Kernersville**	**27284**
Atrium Health Davie Medical Center	**329 NC Hwy 801 North**	**Bermuda Run, NC**	**27006**
Alamance Regional Medical Center	**1240 Huffman Mill Rd.**	**Burlington, NC**	**27215**
Catawba Valley Medical Center	**810 Fairgrove Church Rd., SE**	**Hickory, NC**	**28602**
Greensboro Medical Imaging	**315 West Wendover Ave.**	**Greensboro, NC**	**27401**
Greensboro Medical Imaging -DRI	**4030 Oaks Professional Parkway Suite 101**	**Burlington, NC**	**27215**
Emerge Ortho-Triad region	**1111 Huffman Mill Rd,**	**Burlington, NC**	**27215**
Forsyth Medical Center	**3333 Silas Creek Parkway**	**WS, NC**	**27103**

(Novant)			
Forsyth Medical Center Imaging – Maplewood Clinic	**3155 Maplewood Drive**	**WS, NC**	**27103**
High Point Regional Hospital System	**601 North Elm St.**	**High Point, NC**	**27262**
Hugh Chatham Health	**180 Parkwood Drive**	**Elkin, NC**	**28621**
Iredell Health	**557 Brookdale Dr**	**Statesville**	**28677**
Lexington Memorial Hospital	**250 Hospital Dr.**	**Lexington, NC**	**27292**
Moses H. Cone Memorial Hospital	**1200 N. Elm St.**	**Greensboro, NC**	**27401**
Morehead Memorial Hospital	**117 E. Kings Highway**	**Eden, NC**	**27288**
Northern Hospital of Surry Co.	**830 Rockford St.**	**Mount Airy, NC**	**27030**
Randolph Heath		**Asheboro, NC**	
Rowan Regional Medical Park on Julian Rd.	**514 Corporate Circle**	**Salisbury, NC**	**28147**
Thomasville Medical Center	**207 Old Lexington Rd.**	**Thomasville, NC**	**27360**

Wake Forest University Baptist Medical Center	**Medical Center Blvd.**	**WS, NC**	**27157**
Wesley Long Community Hospital	**501 N. Elam Ave.**	**Greensboro, NC**	**27403**

1.11 ARRT EQUATION FOR EXCELLENCE

The licensure body for MRI technologist is the American Registry of Radiologic Technologists (ARRT). They have laid out three pillars of excellence to which our program abides.

- **EDUCATION**
  Education is the first of the three components of The ARRT Equation for Excellence, but it applies throughout an R.T.'s career. First is the preparatory education that, through didactic and clinical requirements, establishes eligibility for certification and registration. Post primary eligibility has its own educational requirement by way of clinical experience that all candidates must fulfill. Even after earning the R.T. credential, R.T.s are subject to continuing education (CE) requirements and—for certificates earned since Jan.1, 2011—Continuing Qualifications Requirements (CQR).

- **ETHICS**
  The ARRT Standards of Ethics provides proactive guidance on what it means to be qualified and to motivate and promote a culture of ethical behavior within the profession. Compliance with the Rules of Ethics is required for initial eligibility and ongoing certification and registration. The Code of Ethics serves as an aspirational guide to achieving the highest standards of patient care. A link to the Ethics document is provided. It is important that you understand the importance of ethics in your profession and practice.

  The Code is intended to assist radiologic technologists in maintaining a high level of ethical conduct. The entire Standards of Ethics can be found at: https://assets-us-01.kc-usercontent.com/406ac8c6-58e8-00b3-e3c1-0c312965deb2/82777f8b-a85d-4d6b-8efc1b352310eabc/arrt-standards-of-ethics-2020.pdf

- **EXAMINATION**
  Although education and ethics requirements are imposed by ARRT, technologists themselves oversee determining when they confront the examination component of the Equation for Excellence. The first exam they pass bestows the "R.T." designation, accompanied by the initials indicating their discipline. An applicant will have a maximum of three attempts to pass this rigorous examination.

1.12 Scope of Practice

The practice of magnetic resonance is performed by health care professionals responsible for the use of radiofrequencies within a magnetic field for diagnostic, therapeutic or research purposes. A magnetic resonance technologist performs magnetic resonance and molecular imaging procedures and acquires and analyzes data needed for diagnosis at the request of and for interpretation by a licensed practitioner (ASRT practice standards).

Magnetic resonance technologists independently perform or assist the licensed practitioner or radiologist assistant in the completion of magnetic resonance and molecular imaging procedures. Magnetic resonance technologists prepare, administer and document activities related to medications in accordance with federal and state laws, regulations, or lawful institutional policy.

1.13 Standards of Practice

- Applying principles of magnetic resonance safety to minimize risk to patient, self, and others.
- Assisting the licensed practitioner with interventional procedures.
- Performing procedures for diagnostic interpretation or therapeutic intervention as prescribed by a licensed practitioner.
- Selecting appropriate pulse sequences with consideration given to established protocols and other factors influencing data acquisition parameters.
- Assesses patient for factors that may contribute to anxiety or claustrophobia.
- Identifies and removes items that may affect patient’s safety, damage the equipment, or affect the image quality.
- Screens patient and others for potential magnetic resonance contraindications, either within the body or on their person, prior to entering the magnet room.

1.14 Working as an MRI Technologist

Magnetic Resonance Imaging (MRI) is an emerging imaging modality enhancing the ability to see anatomy, pathology, and physiology. Clinically MRI has been used for about 45 years, it is complex and evolving at a rapid pace.

As an MR Technologist, you will integrate your knowledge of the fundamental principles of MRI physics, safety, and anatomy into your daily practice. MRI provides the ability to view cross-sectional images of anatomical regions non-invasively by using extremely strong magnetic fields and radio waves. To perform an MRI scan, the patient is placed on an imaging table and an imaging coil will be placed on the patient. Exam times vary by patient diagnosis, anatomy, and complexity of the protocol.

Many types of MRI scanner exist. Some scanners are tube-shaped, and others are of a more “open” design. Patients may have some level of anxiety during the procedure and require the support of a calm and caring technologist makes all the difference in the patient's experience. MRI scanners create powerful magnetic fields that line up certain atomic nuclei within the body. When stimulated by radio waves, these nuclei produce rotating magnetic fields that can be converted into images by a computer. Technologists have a nuanced understanding of the physics behind this process that allows them to create pictures with excellent contrast and signal to noise ratios. They also rely on their expertise in landmarking the human anatomy to position the patient and target the body structures to be studied. Once a study is complete, the technologist reviews images for quality. The radiologist makes the diagnosis and communicates it to the patient's physician. As vital players on the health care team, MRI techs take great pride in producing the high-quality images physicians need to diagnose and treat with confidence and accuracy.

1.15 Technical Standards for Program Completion

Our program technical standards have been developed to help students understand nonacademic standards, skills, and performance requirements expected of a student in this curriculum. If an accommodation is necessary to participate in the program, it is imperative to identify a reasonable accommodation for those students who qualify under the Americans with Disabilities Act (ADA). Reasonableness is determined by the Disability Services Office (DSO) and the program on a case-by-

case basis utilizing the program technical standards. The accommodation should be submitted as soon as possible by the student to the DSO office.

Meeting these technical standards does not guarantee employment in this field upon graduation. Ability to meet the program's technical standards also does not guarantee a student's eligibility for any licensure, certification exam, or successful completion of the degree program.

SKILL	DESCRIPTION
Auditory	• Ability to hear verbal directions/requests from physicians, patients, etc. • Patient in the MRI scanner trying to communicate through the microphone
Fine-motor skills	• Manipulate small objects such as knobs, buttons, and switches on MR equipment • Perform procedures as intravenous access and injection
Mobility **(Stand, Crouch, kneel, bend, and twist)**	• Kneeling and bending to perform CPR • Assist patients who may fall or faint • Position and set-up of patients for exams • Stand and sit for periods of time while performing exams and prepping patients
Lift @ 50lbs.	• To lift coils on & off scanning table & storage areas • Assist patients on/off table, stretchers & wheelchairs
Verbal	• To communicate with staff, patients, etc. (Includes writing, verbal, and reading)
Visual	• Patient identification • Read the exam orders • Read and document patient's clinical history • Ability to recognize patient in distress • Read and interact with multiple computer screens during an exam. • Recognize window and leveling on images, and ascertain anatomy, and pathology structures

Mental & Social Skills	• Function safely, effectively, and rationally under stressful conditions • Maintain composure while managing multiple tasks simultaneously • Prioritize multiple tasks • Exhibit social skills necessary to interact effectively with patients, families, supervisors, and co-workers of the same or diverse cultures such as respect, politeness, tact, collaboration, teamwork, and discretion
Critical Thinking/ Problem Solving	• Organize and accurately perform in proper sequence, and within a specified time, the steps required for MR procedures. • Ability to remember and recall substantial amounts of information. • Ability to quickly assess patients' conditions and other emergent situations, determine appropriate courses of action, request assistance or delegate responsibilities to other members of the healthcare team, and/or respond as needed. • Identify cause-effect relationships in clinical situations. • Evaluate images to ascertain that they contain proper identification and are of diagnostic value. • Initiate proper emergency care protocols, including CPR, based on assessment data. • Select modification of procedures and/or technical factors to accommodate patient age, size, condition, or extent of disease.

Section II

Program Specific Information

2.1 Curriculum by Semester

Associate in Magnetic Resonance Imaging

Fall Semester - 1

Description				Class	Lab	Clinical	Credit
	IMG	120	Patient Care in Medical Imaging	1	2	0	2
	IMG	110	Fundamentals of Imaging I	2	0	6	4
	BIO	163 or 168/169	Biology Anatomy & Physiology	4	2	0	5
	MAT	143	Quantitative Literacy	1	2	0	2
	ENG	111	Writing and inquiry	3	0	0	3

Spring Semester –

Description				Class	Lab	Clinical	Credit
	IMG	130	Ethics/Law in Medical Imaging	3	0	0	3
	IMG	111	Fundamentals of Imaging II	2	0	6	4
	PSY	150	Intro to Psychology	3	0	0	3
	COM	231	Public Speaking	3	0	0	3

Summer Semester – 1: Beginning of Post Primary Diploma Program

Description				Class	Lab	Clinical	Credit
	MRI	213	MRI Patient Care/Safety	2	0	0	2
	MRI	216	MRI Instrumentation	2	0	0	2
	MRI	250	MRI Clinical Ed I	0	0	12	4
	HUM			3	0	0	3

Fall Semester – 2

Description				Class	Lab	Clinical	Credit
	MRI	217	MRI Physics I	2	0	0	2
	MRI	214	MRI Procedures I	2	0	0	2
	MRI	241	MRI Anatomy/Pathology I	2	0	0	2
	MRI	260	MRI Clinical Ed II	0	0	21	7

Spring Semester – 2

Description				Class	Lab	Clinical	Credit
	MRI	218	MRI Physics II	2	0	0	2
	MRI	215	MRI Procedures II	2	0	0	2
	MRI	242	MRI Anatomy/Pathology II	2	0	0	2
	MRI	270	MRI Clinical Ed III	0	0	24	8
	MRI	271	MRI Capstone	1	0	0	1

Total hrs.: 15

AAS Total Hours: 72
Diploma Total Hours:36

Course Descriptions

Course # Title and Description

IMG 110 Fundamentals of Imaging I

Semester Information			
Credit Hours: 4		**Contact Hours:**	
Class Hours: 2	**Lab Hours: 0**	**Clinical Hours: 6**	
Course Information			
Course Description: **This course provides an overview of the principles of imaging for radiography, nuclear medicine, ultrasound, and radiation therapy. Emphasis is placed on image production and anatomical relationships in radiography, nuclear medicine, ultrasound, and radiation therapy. Upon completion, students should be able to identify basic anatomy on and differentiate between radiography, nuclear medicine, radiation therapy and ultrasound images.**			

IMG 120 Patient Care in Medical Imaging

Semester Information			
Credit Hours: 2		**Contact Hours:**	
Class Hours: 1	**Lab Hours: 2**	**Clinical Hours: 0**	
Course Information			
Course Description: **This course is designed to provide the basic concepts of patient care in a healthcare facility. Topics include routine and emergent patient care procedures, infection control procedures, and usage of universal precautions. Upon completion, students should be able to demonstrate competence in these areas.**			

IMG 111 Fundamentals of Imaging II

Semester Information			
Credit Hours: 4		**Contact Hours:**	
Class Hours: 2	**Lab Hours:** 0	**Clinical Hours: 6**	
Course Information			
Course Description: **This course provides an overview of the principles of imaging for CT, PET, CT/PET, and MRI in class and in the clinical setting. Emphasis is placed on image production and anatomical relationships in CT, PET, CT/PET, and MRI. Upon completion, students should be able to identify basic anatomy on and differentiate between CT, PET, CT/PET, and MRI images.**			

IMG 130 Ethics and Law in Medical Imaging Sciences

Semester Information			
Credit Hours: 3		**Contact Hours:**	
Class Hours: 3	**Lab Hours:** 0	**Clinical Hours: 0**	
Course Information			
Course Description: This course covers the legalities of relationships between health care workers and patients. Emphasis is placed on professional malpractice, patient rights, legal and professional standards, and ethical consideration. Upon completion, students should be able to demonstrate the legal and ethical responsibilities of a diagnostic imaging professional.			

MRI 213 MR Patient Care and Safety

Semester Information			
Credit Hours: 2		**Contact Hours:**	
Class Hours: 2	**Lab Hours:** 0	**Clinical Hours: 0**	
Course Information			
Course Description: **This course covers magnetic field safety issues concerning patients and other healthcare personnel. Emphasis is placed on screening skills, biological magnetic field effects, and the management of an MR facility. Upon completion, the student should be able to demonstrate a safe MR environment for patients and all personnel.**			

MRI 216 MR Instrumentation

Semester Information			
Credit Hours: 2		**Contact Hours: 2**	
Class Hours: 2	**Lab Hours:** 0	**Clinical Hours: 0**	
Course Information			
Course Description: **This course covers instrumentation utilized to produce magnetic fields allowing MRI imaging to take place. Emphasis will be placed on equipment operations and use, inclusive of the static field, gradient fields, and the radiofrequency fields. Upon completion, the student should be able to demonstrate an understanding of the utilization of all MRI equipment in an MRI facility.**			

MRI 250 MR Clinical Ed I

Semester Information			
Credit Hours: 4		**Contact Hours:**	
Class Hours: 0	**Lab Hours:** 0	**Clinical Hours: 12**	**Credit Hours 4**
Course Information			
Course Description: This course provides experience in the MR clinical setting with attention to basic MR scan procedures. Emphasis is placed on patient care, screening, contrast administration, and manipulation of MR equipment. Upon completion, students should be able to demonstrate selected MR procedures/techniques in the areas of patient screening, contrast administration, and manipulation of MR equipment.			

MRI 214 MR Procedures I

Semester Information			
Credit Hours: 2		**Contact Hours: 2**	
Class Hours: 2	**Lab Hours:**	**Clinical Hours:**	
Course Information			
Course Description: **This course introduces scan procedures for the central nervous and musculoskeletal systems with MRI imaging. Emphasis is placed on patient set-up, scan parameters, methods of data acquisition, and contrast administration with each of these types of procedures. Upon completion, students should be able to demonstrate all aspects of MR imaging to successfully scan the central nervous and musculoskeletal systems.**			

MRI 217 MR Physics I

Semester Information			
Credit Hours: 2		**Contact Hours: 2**	
Class Hours: 2	**Lab Hours:**	**Clinical Hours**	
Course Information			
Course Description: **This course is designed to cover the basic physics fundamentals of Magnetic Resonance Imaging. Emphasis is**			

placed on the historical development, basic imaging principles, and use of basic scan parameters and pulse sequences. Upon completion, the students should be able to demonstrate an understanding of the fundamentals of magnetic resonance imaging.

MRI 241 MR Anatomy and Pathology I

Semester Information			
Credit Hours: 2		**Contact Hours: 2**	
Class Hours: 2	**Lab Hours:** 0	**Clinical Hours: 0**	
Course Information			
Course Description: **This course covers anatomical and pathological information about the components of the central nervous and musculoskeletal system. Emphasis is placed upon identification of anatomy and pathology on MRI images of the central nervous and musculoskeletal systems. Upon completion, the student should be able to identify anatomy and pathology of the central nervous and musculoskeletal systems.**			

MRI 260 MR Clinical Ed II

Semester Information			
Credit Hours: 7		**Contact Hours:**	
Class Hours: 0	**Lab Hours:** 0	**Clinical Hours: 21**	**Credit Hours 7**
Course Information			
Course Description: This course provides advanced experience in the MR clinical setting with attention to central nervous and musculoskeletal system imaging. Emphasis is placed on demonstration of methods of data acquisition with respect to central nervous and musculoskeletal system imaging. Upon completion, students should be able to demonstrate selected MR procedures/techniques as they relate to the central nervous system and musculoskeletal imaging.			

MRI 215 MR Procedures II

Semester Information			
Credit Hours: 2		**Contact Hours: 2**	
Class Hours: 2	**Lab Hours:**	**Clinical Hours:**	
Course Information			
Course Description: **This course introduces scan procedures for neck, chest, abdomen, and pelvic systems with MRI imaging. Emphasis is placed on patient set-up, scan parameters, methods of data acquisition, and contrast administration with each of these types of procedures. Upon completion, students should be able to demonstrate all aspects of MR imaging to successfully scan the chest, abdomen, and pelvic systems.**			

MRI 218 MR Physics II

Credit Hours: 2		Contact Hours: 2	
Class Hours: 2	**Lab Hours:**	**Clinical Hours**	
Course Information			
Course Description: This course is designed to cover the advanced physics concepts of Magnetic Resonance Imaging. Emphasis is placed on advanced imaging parameters and techniques, angiography methods, image artifacts and quality control. Upon completion, the students should be able to demonstrate an understanding of the advanced physics concepts of magnetic resonance imaging.			

MRI 242 MR Anatomy and Pathology II

Semester Information			
Credit Hours: 2		**Contact Hours:**	
Class Hours: 2	**Lab Hours:** 0	**Clinical Hours:** 0	
Course Information			
Course Description: This course covers anatomical and pathological information about the components of the neck, chest, abdomen, and pelvic systems. Emphasis is placed upon identification of anatomy and pathology on MRI images of the neck, chest, abdomen, and pelvic systems. Upon completion, the student should be able to identify anatomy and pathology of the neck, chest, abdomen, and pelvic systems.			

MRI 270 MR Clinical Ed III

Semester Information			
Credit Hours: 8		**Contact Hours:**	
Class Hours: 0	**Lab Hours:** 0	**Clinical Hours:** 24	**Credit Hours** 8
Course Information			
Course Description: This course provides additional advanced experience in the MR clinical setting with attention to neck, chest, abdomen, and pelvic imaging. Emphasis is placed on demonstration of methods of data acquisition with respect to neck, chest, abdomen, and pelvic system imaging. Upon completion, students should be able to demonstrate selected MR procedures/techniques as they relate to the neck, chest, abdomen, and pelvic system imaging.			

MRI 271/MR 3354 dual MR Capstone

Semester Information			
Credit Hours: 1		**Contact Hours:**	
Class Hours: 1	**Lab Hours:**	**Clinical Hours:**	
Course Information			
This course provides experience using problem solving skills required for certification. Emphasis is placed on critical thinking and integration of didactic and clinical components. Upon completion, students should be able to demonstrate knowledge required of any entry level MR technologist.			

Program Costs and Fees

In-State Tuition ($76.00 per credit hour x 72 credit hours)	**$5,472.00**
Out-of-State Tuition ($268.00 per credit hour x 70 credit hours) $18,760.00	**19,296.00**
TEAS Testing (Admission Testing)	**10.00**
Medical physical, lab work, and immunizations,	**Variable due to insurance, copay, and deductibles copay, and deductibles**
CPR- American Heart Association (estimated average)	**$53.00**
Trajecsys Clinical Reporting Software	**150.00**
Campus Parking Fees (CAPS)	**125.00**
Malpractice Insurance (Liability insurance must be purchased annually before engaging in lab or clinical practice. The cost varies according to the credit program and insurance carrier)	**$36.00**
Textbooks and Course Material (estimated average)	**400.00**
Uniforms (estimated average)	**75.00**
Clinical Management System (MyClinicalExchange) (estimated average)	**79.00**
MR Registry Review Software	**150.00**
Criminal background/Drug Screening (American Data Bank/Complio) (estimated average)	**95.00**
Grand Total Estimated Costs: In-State resident	**$6,645**
Total Estimated Costs: Out-of-State resident	**$20,269**
The total estimated cost does not include travel expenses. Travel to Forsyth Tech main campus, clinical sites, second shift, and weekend clinical rotations are a requirement during the program. For additional information on Refund Policies please see the following link: https://www.forsythtech.edu/students/how-to-pay-for-college/financial-aid-faqs/	

Program Critical Requirements

2.3 CPR Certification

The student must maintain a current completion of a Cardiopulmonary Resuscitation Course (CPR) and have a current copy of a CPR card in Forsyth Tech student file. The course should be labeled "Health Care Provider." Certification must be through the American Heart Association. Evidence of completion must be presented to the department prior to the last class day of the first semester. It is the student's responsibility to keep their CPR current throughout the program.

2.4 MRI Safety

All accepted MRI students are required to complete an MRI screening form. This is an important safety criteria for all personnel in an MRI environment. Students will receive training in all aspects of MRI Safety and expected to perform according to all American College of Radiology guidelines, as well as those of the clinical practice sites. Any internal or external metallic devices must be disclosed and evaluated prior to clinical rotations. Confidentiality will be maintained, but the safety of staff and students is the top priority. MRI safety training is required prior to any clinical work in an MRI facility. MRI students will be Level 1 and Level 2 trained during the program curriculum. Any change in medical history as it pertains to MRI safety should be immediately reported to the MRI program leadership. This may impact the student's clinical placement and could lead to a change in status. However, the safety of our students is the upmost concern of the college.

2.5 Confidentiality

During the Clinical Education Program, students will be exposed to confidential or proprietary information. This may include patient care and identifying documents, as well as business information, covering facility specific operations, strategic planning, personnel, financial, and IT management systems. Each student should conform to ethical standards and never release any information related to the diagnosis, treatment, or care of the Facility's patients.

2.6 Infection Control

Universal Precautions must be taken during clinical rotations. Students must be aware of each facility's protocol in following the protective guidelines for

Infectious Diseases and Blood Borne Pathogens. (Education and training in HIPAA/OSHA policies for each facility will be completed prior to student clinical rotations).

2.7 Proficiency/Exam Competency Testing

Along with your didactic work, a key component of the MRI curriculum is performed during clinical rotations with our hospital and clinic instructors. MRI students will be deemed competent (by a registered MRI technologist) when a student is able to perform an exam with no or little guidance. This skillset takes time, and practice. Students will have an opportunity to practice in the lab, as well as during the clinic hours. Each student must perform their clinical comps/proficiency with a score of 75% or greater and this will become a part of the overall Clinical final grade.

***Other Critical Requirements may be listed in individual course syllabi.**

2.8 Disabilities and Accommodations

Equity Statement

At Forsyth Technical Community College, equity is grounded in a culture of belonging. We will intentionally design the college experience to ensure that each learner receives what they need to be successful.

Disability Services

Disability Services is dedicated to meeting the needs of college students with disabilities. Our goal is to ensure that all students have equal access and opportunity to benefit from classes, programs, and activities at Forsyth Tech. Forsyth Tech strives to empower students in every way possible, believing that by doing so, we can maximize their abilities.

Students who have a disability and would like to request services and accommodation must register with Disability Services. They will be required to provide documentation of their disability. Information provided by a student is voluntary and appropriate confidentiality is maintained. Students who need accommodations should contact the Disability Services Office (DSO) at (336) 734-7378 or (336) 734-7155; or disabilityservices@forsythtech.edu. The College has a telecommunications device for the deaf (TDD/ TTY). The

number is (336) 723-3411. DSO is in the Robert L. Strickland Center, Student Success Center - Suite 2414. Their office is open Monday – Thursday 8am to 5pm and Friday 8am to 3pm.

Services are designed and developed on an individual-needs basis and are free to our students. A student may elect to use any or all the accommodation/services appropriate to meet their needs. Students may walk into the DSO on Tuesdays and Thursday and speak with a DSO counselor, but an appointment is encouraged on all other days to discuss individual accommodation.

In strict compliance with Section 504 of the Rehabilitation Act of 1973, no otherwise qualified individual with a disability shall solely by reason of his or her disability be excluded from the participation in, denied benefits of, or be subjected to discrimination under any program or any activity of this institution. For more information regarding Disability Services, please view our Forsyth Tech Disability Student Services Guide.

2.9 Student Medical Insurance

The Forsyth Tech malpractice insurance is a student fee and is in place to provide liability protection in the event an accident should occur. All students are strongly recommended to have personal medical insurance coverage. Neither Forsyth Tech nor the clinical affiliates are liable for injury to or by individual students.

Current Malpractice Insurance (Good for 1 year) Carrier: Strategic Resource Company (SRC) Policy Number: SGL1506

2.10 Student Code of Conduct

The MRI Program strictly enforces Forsyth Tech's rule on Academic Dishonesty, Cheating, and Related Offenses. (See Rule 9. Academic Dishonesty, Cheating, and Related Offenses in Forsyth Tech Academic Catalog & Student Code of Conduct). *In the event of a violation,* appropriate *disciplinary action(s) will be taken.* Please visit the link below for complete Student conduct policies.

https://www.forsythtech.edu/files/services-student/StudentGuideAccResources2021.pdf

2.11 Cell Phone and Electronic Devices

Forsyth Tech considers the use of cell phones to be disruptive to the classroom setting. Therefore, students are to silence cell phones while attending class or participating in class- related activities (i.e., labs, clinicals, etc.) The use of other electronic devices (such as laptops, netbooks, PDAs, recording devices, etc.) for learning purposes is permitted provided they do not disrupt the learning environment or create an academic integrity issue. The instructor may at his/her discretion prohibit the use of any electronic device. Students who do not comply will be considered in violation of the Student Code of Conduct and could face disciplinary actions.

2.12 Social Media Pages

Many individuals have social media accounts. Students may not discuss patients, staff, or scenarios that take place in the clinical or classroom setting on social media. To do so violates HIPAA policies. Any students found to have posted comments or images onto social media/or other sites will be dealt with according to the policies of the college or individual clinical sites. MRI students that violate this policy may face dismissal from the program.

2.13 Controlled Substance Usage

Any student under the influence of any narcotic drug, alcoholic beverage, or any other controlled substance (as controlled substance is defined by the N. C. General Statues) while in any MRI class, clinical or school-controlled activity, function or event will be dismissed from the classroom or clinical site. Use of any medication authorized by medical prescription is not considered a violation, however, students will be held strictly accountable for their behavior while under the influence of prescribed drugs.

If dismissed, the student will be asked to immediately report to the MR departmental program coordinator and/or Dean of Student Services. The College's action will follow the “Student Code of Conduct and Responsibilities" of the ***Forsyth Tech Student Handbook***. Action can include suspension and/or dismissal. The MR program will enforce all rules and regulations specific to the MR Student Handbook. The Forsyth Tech Student Handbook regulations will be followed concerning student attendance and grading. Students suspected of using narcotics,

alcoholic beverages, or controlled substance may be asked by clinical affiliated staff to submit to a drug test.

2.14 Criminal Background Checks/Drug Screening

Clinical facilities require criminal background checks and drug screening for students assigned to clinical rotations at their facility. In addition, national and/or state registry and licensure boards may prohibit eligibility for registry or licensure based on criminal background records.

The MRI program uses one or more of these clinical facilities for clinical education. Therefore, to successfully complete the requirements of the MRI program clinical training, each student is required to complete the criminal background and drug screening.

The criminal background check and drug screening are administered by a third-party vendor who sends the results directly to the clinical agencies. After the student completes the requirements of the facility to which he/she is assigned, the clinical agency will notify the College if a student will not be allowed at the site due to a finding on the criminal background check or drug screen. Specific information about the finding will NOT be disclosed to the College.

If a student is denied access to a clinical facility based on criminal background check and/or drug screen, the student will NOT receive a secondary placement in another facility. The student will not be able to progress in the program due to the inability to meet the clinical objectives.

2.15 Clinical Affiliate Rights

All clinical affiliates have the right to refuse access to their facility to individuals and/or students according to the clinical contract. For example, if a student has worked for a clinical site and been released with a status of ‘no-rehire,’ the student may not be allowed to rotate at that facility or any of its’ affiliates. If a student is not able to meet the program competency requirements due to limited clinical facilities, the student may be withdrawn from the program.

2.16 Curriculum Pregnancy Policy

It is the policy of Forsyth Technical Community College to keep individual exposure to radiofrequency and magnetic fields to a minimum, especially during

pregnancy.
Pregnant students are expected to follow the recommendations of the ACR regarding pregnant health care practitioners as outlined in the ACR White Paper on Magnetic Resonance (MR) Safety and MRI Safety Policy for Pregnant Patients, Staff and Visitors. Please see the paragraph below for further information.

ACR Pregnancy-Related Issues:

"Pregnant health care practitioners are permitted to work in and around the MR environment throughout all stages of their pregnancy. Acceptable activities include, but are not limited to, positioning patients, scanning, archiving, injecting contrast, and entering the MR scan room in response to an emergency. Although permitted to work in and around the MR environment, pregnant health care practitioners are requested not to remain within the MR scanner bore or Zone IV during actual data acquisition or scanning."

2.17 Change of Health Status

Students that withdraw from the MRI Program due to a change in health will go through the following readmission process:

1. Give written notice to the MRI Program Coordinator and Admissions your desire to gain readmission to the program. This notice must be within two months of the beginning of the term.
2. Readmission to the program is not guaranteed. Class capacity is dependent on clinical availability.
3. Students may not be readmitted if the semester classes they are reapplying for are at capacity.
4. In the event a student is not readmitted to the program due to lack of clinical space/full capacity, the student will enter the candidate pool, complete the MAR process, and reenter as a first semester student.

2.18 General Program Rules

It is the student's responsibility to use the best judgement when coming to class with a potentially infectious/communicable disease. Each clinical site has specific regulations regarding attendance when sick. Specific questions should be directed to the MRI Clinical Coordinator.

- Each student is responsible for all material covered during any class session in which he/she is absent. Students are encouraged to discuss work missed with instructors.

- Textbooks should be brought to every class.

- Tests are presented to the student after grading for review and feedback.

- Submit all written materials in a neat and legible form on or before the due date. Further information is outlined in the classroom syllabus and assignment instructions.

- Students will not engage in disorderly or disruptive conduct. See "Student Code of Conduct" in the current student academic planner and handbook.

- Smoking or the use of smokeless tobacco/electronic cigarettes is prohibited in the classroom, campus, and clinical areas.

- No narcotics, alcoholic beverages, or controlled substances are allowed on the campus. If a student smells of alcohol or other illicit drugs, they will be immediately dismissed from class and/or clinical and have mandated counseling. The student could be dismissed from the program.

- If a student is a threat to his own self or others, the student will be referred to the counseling center for appropriate instruction.

- Use of profanity or inappropriate language is not permitted.

- Students must always be respectful to instructors and fellow students.

- Students must have a grade of 75% or higher to pass the course.

- If a student is dismissed (for academic reasons), a process for readmission will be outlined. Readmission to the program is based upon clinical availability and is not guaranteed. Students that are dismissed and not in good standing with the college will not be considered for readmission. Students are only allowed one readmission into the MRI program.

- If two or more students seek re-entry into the program at the same time, readmission will be determined by the students' original MAR score. In the

event of inclement weather, the college will announce cancellation of classes on the local radio and television. If the college is closed, students may not go to the clinical. If the college is not closed and roads are unsafe in the student's area, the student should use the best judgement when deciding to come to class/clinical. The student will be responsible for making up any missed clinical time if the school is open. Students are responsible for checking Techlink, Tech Alert and the college website for news on changing weather when in clinical. When the college closes early due to weather on a clinical day, students should leave the clinical site as soon as it is safe to do so.

2.19 Academic/Grade Scale

A 90 - 100
B 89-80
C 79-70
D 69-60
F Below 60

To remain in good academic standing in the Magnetic Resonance Imaging Program, all courses with an IMG and MRI prefix, must be passed with a grade of 75 or above. This reflects compliance with ARRT exam expectations.

2.20 Library/Research Facilities

Library facilities include the main campus Forsyth Tech Library (Ardmore bldg. 1st floor) and (https://www.forsythtech.edu/library/). The MRI classroom (BGH W224) also has a library of MRI reference materials which can be borrowed on an as needed basis. There are many reference materials available on-line and in our library resources for your use during the program.

2.21 Reading and Homework Assignments

Classroom and instructor-student discussion are not the total learning process. To facilitate the teaching/learning process beyond the physical boundaries of the classroom, assignments are given requiring research, reading, computer programs, audio-visual material, practice, and at-home study. These assignments strengthen the classroom instruction and enhance the instructional material for tests and exams. Instructors in various courses may opt to include these assignments in tests or when computing final grades.

2.22 Dress Code for Classroom

The personal appearance and demeanor of students reflects the college and the program standards as well as the student's interest and pride in the profession. Students will be allowed to wear casual attire during class excluding short shorts, tank tops with spaghetti straps, torn jeans, halter tops, offensive tee shirts and see-through attire. Please remember that you are in a professional program, and we strive to enhance our professional image.

2.23 Classroom Attendance

Forsyth Tech regards class lectures, demonstrations, and other in-class experiences as vital ingredients to the educational process. For this reason, students are expected to attend and arrive on time to all class, laboratory, practicum, and clinical experience sessions. If you are unable to attend or will be late to class, please contact your instructor as soon as possible. You may either plan a make-up assignment or alternate lecture as required for the course curriculum. It is at the discretion of the instructor to take points from the attendance grade for tardy and missed classes. Please refer to the Forsyth Tech Student Handbook or your class syllabi for specific attendance policies.

2.24 Missed Tests

Students must be present for announced tests or a "0" will be issued. Exceptions will be managed on a case-by-case basis. Illness and emergency situations may require documentation. All missed assignments must be remediated as soon as possible at the discretion of the instructor or program coordinator.

2.25 Clinical Rules and Regulations

- Students will be expected to comply with the Professional Code of Ethics by the American Registry of Radiologic Technologists (www.arrt.org).

- Any change to the students' MRI safety status (surgery, cosmetics, medication patches, etc.) must be reported to the Program Coordinator prior to any subsequent clinical rotation.

- Report to assigned area at appropriate time and check in with Preceptor and/or manager.

- Call to notify the clinical coordinator and clinical site prior to arrival time, of any impending absence. See course syllabus for further information.

- All technologists registered in MR, employed by the clinical facility are considered clinical preceptors. The students are under their direct supervision while in the assigned clinical setting.

- All hospital rules and regulations must be abided by. Violations could result in dismissal from the program. Any questions concerning these rules should be directed to the Forsyth Tech clinical instructor.

- Remain in the assigned area. When not busy the student should help with cleaning, stocking, and maintaining the department requirements.

- Take breaks when permitted by staff tech.

- Students must take a 30-minute lunch.

- Eating and drinking are only allowed in the staff lounge or designated areas.

- Accurately record time in and out during clinical courses. Falsification of any record may result in a grade of F for the course.

- Maintain clinical forms and competency information by either LMS or clinical time management tool.

- All makeup time must be performed during scheduled make-up days.

- All students will maintain clinical log/comp for in their clinical comp system. These will be approved by their clinical preceptor, and the program clinical coordinator.

- Students must be familiar with the clinical site Fire and Code Blue Policy. You may be questioned about it by faculty or staff.

- All students will perform two patient identifiers according to each facility

prior to imaging.

- All students will use Universal Precautions with all patients.

- Students will be required to complete updated OSHA, HIPAA per clinical facility. IV class will be taught by Forsyth Tech faculty and practiced at clinical.

- At no time may a student be allowed to use the clinical computer for internet "surfing" or use of social media. Clinical computers may be used with supervision of the clinical site to research screening information, GFR calculations or other information deemed necessary by the site.

- In the event a clinical site requests reassignment of a student for any reason, an investigation will occur and if policies are violated, disciplinary actions and/or dismissal will take place. Students should be aware that if they are dismissed from a clinical site, the MRI program cannot guarantee placement at another facility.

- If the student is asked to leave the clinical site by a staff member and/or Forsyth Tech faculty for any reason, the student should leave the premises immediately. If not, Forsyth Tech or clinical facility security will be called and escort the student off the premises.

2.26 Clinical Dress Code

- Students are required to be in full clinical uniform during all clinical hours. If a student reports to their clinical site without being in proper uniform, they will be sent home, and it will be counted as an absence that will have to be made-up.

- The clinical uniform must be consistent with the MRI Program uniform policy. Shoes must be primarily white or black. If you have questions, please check with the Clinical Coordinator. No crocs or open-toed shoes. Tops must have correct embroidery to identify MRI student. Short white lab coats are optional. If you purchase a lab coat, it must be embroidered with Forsyth Tech MR Program logo. No hoodies or sweat jackets are allowed. Clean uniforms, professional appearance, and attention to personal hygiene are required.

- All students will be required to obtain a Forsyth Technical Community College student ID at the Student Activities/Student Government office in the TEC Building. This must be worn at all clinical facilities. It should state name, MR, Forsyth Tech, Imaging Technologies.

- Hair should be neat and off the collar. Males should be clean-shaven. If a beard or moustache is worn, it must be neatly trimmed.

- Jewelry harbors microorganisms that are difficult to remove. To help prevent the transmission of infections and to comply with dress codes in our affiliates, please keep jewelry to a minimum and maintain good infection control practices.

- Patients can be sensitive to odors or have allergies to commonly used perfumes or body sprays. Students should refrain from using scented body products in the clinical setting.

- Any use of tobacco products is prohibited at all clinical facilities. If you are found smoking or have chewing tobacco in your mouth, you will be dismissed from the clinical site. This may lead to disciplinary actions and potentially to dismal from the program.

- Students must be professional in appearance as determined by the Clinical Coordinator. Students must adhere to the clinical site policies.

- No cell phones/pagers are allowed in the clinical areas. For urgent issues, notify your clinical preceptor to work out a time for you to check and make phone calls.

2.27 Professional Standards

The MRI Program at Forsyth Tech is committed to producing MRI technologists who will provide the highest quality of care to their patients. Students are expected to always conduct themselves in a professional manner. As a student, you represent the Forsyth Tech MRI Program on the college campus, in all clinical settings, and in any other situation where you might be identified as a Forsyth Tech student. Students will abide by the American Registry of Radiologic Technologist's (ARRT's) Code of Ethics and Rules of Ethics. Students are accountable for their own behavior and are expected to treat all individuals with respect. Students are expected to listen and follow instructions from the faculty, clinical instructor,

preceptor, and clinical staff. In the event of any concerns, students are to follow the program's grievance policy or FTCC student concern policy (whichever is most applicable).

Examples of professional behaviors:

- Show initiative, and a positive attitude towards assigned tasks and towards constructive criticism
- Be punctual, use good judgment, and work well independently or with a team.
- Build interpersonal relationships with peers and patients.
- Perform well under pressure and apply effective communication.
- Practice quality patient care and treat everyone with equality, dignity, and respect
- Adhere to HIPAA and Rules and Regulations of OSHA.
- Follow all clinical affiliates, program, and college polices, rules, and regulations.

Any violations of professional standards will be addressed immediately and may result in the student's removal from classroom, laboratory and/or the clinical setting. Additional measures may also apply at the discretion of the instructor. Severe infractions may result in immediate dismissal from the MRI Program. Violations of the Professional Standards are effective for the duration of the program and are cumulative.

Unethical Behavior Definition:

Unethical behavior is defined as a student exhibiting qualities and characteristics that are inconsistent with the American Society of Radiologic Technologists (ASRT) Practice Standards for Medical Imaging and Radiation Therapy, the American Society of Radiologic Technologists (ASRT) Code of Ethics for Medical Imaging, the American Society of Radiologic Technologists (ASRT) Code of Ethics for Radiation Therapy, the American Registry of Radiologic Technologists (ARRT) Rules and Regulations, the American Registry of Radiologic Technologists (ARRT) Standards of Ethics, or that violate appropriate moral, ethical, social, and/or legal aspects. Unethical behaviors are in Violation of Professional Standards.

Unethical behavior will include, but not be limited to:

1. Violating the patient's rights, including:
    a. Autonomy
    b. Privacy
    c. Confidentiality
    d. Respect
    e. Nondiscrimination
    f. Informed consent

2. Professional misconduct including:
    a. Inappropriate speech and/or tone of voice
    b. Unprofessional, negative, or disrespectful attitude
    c. Deliberate violation of clinical affiliate policies, such as student usage of electronic devices in the clinical setting
    d. Deliberate damage to or mishandling of equipment in lab, class, or the clinical setting
    e. Defiant behavior with faculty, clinical instructors, clinical staff, and administrators
    f. Showing no initiative, not participating in lab activities or procedures during clinical
    education
    g. Violations of civility (e.g., rude, disrespectful, lewd, indecent, or offensive conduct or apparel)
    h. Falsifying documentation
    i. Violation of dress code policies
    j. Using or being under the influence of alcohol or drugs
    k. Dishonesty, lack of integrity, or irresponsibility
    l. Engaging in behavior that may result in the clinical site requesting a student to be
    removed from the clinical rotation.

3. Violating professional and certification organization policies:
    1. Practicing outside the Practice Standards for Medical Imaging
    2. Violating the Forsyth Tech Imaging Department Radiation Safety Plan
    3. Violating the ARRT Codes of Ethics
    4. Violating the ARRT Rules and Regulations

5. Violating the ARRT Standards of Ethics
    a. Fraud or deceptive practice
    b. Subversion
    c. Unprofessional practice
    d. Scope of practice violations
    e. Improper management of patient records
    f. Failure to report violations or errors
    g. Violation of state, federal, or regulatory laws

4. Violating civil, or criminal law, including:
    1. Negligence
    2. Assault and/or battery
    3. Defamation of character
    4. Sexual Harassment
    5. Invasion of privacy
    6. False imprisonment
    7. Malpractice
    8. Theft

2.28 Clinical Affiliate Denial of Access

At any time, if a student is denied access to a clinical facility based on unethical behavior, or dismissed from the facility for cause, the student may not receive a secondary placement in another facility. The student may not be able to progress in the program due to the inability to meet the clinical objectives. These cases will be handled on a case-by-case base weighing the infraction, student conduct, and the needs of the clinical rotation schedule.

2.29 Work Policy

Students may accept employment with clinical affiliate institutions in the capacity of transport, clerical or student technologist. The program takes no responsibility for student preparedness but suggests that the clinical competency listings be used to determine independent practice. The scheduled work hours are not to be counted toward fulfillment of clinical course hours.

While Forsyth Tech's MR program does not control student employment in the radiology departments of its clinical affiliates or other areas, the following

statements should be adhered to by all students enrolled: At no time should a student in the program be on-site working as an employee of the clinical affiliates while enrolled in regularly scheduled MR Program classes/labs/clinical that occur concurrently.

2.30 Unsafe Practice Policy

If a student performs an unsafe procedure (as determined by faculty and/or preceptors) causing harm to the patient, staff, themselves, or damage to equipment, the student will be removed from the clinical assignment until the incident is investigated and appropriate action is determined. Students will be required to make up all the time missed.

Unsafe practice will include, but not be limited to:

1. Performing procedures without direct or indirect supervision
2. Injuring the patient, clinical staff, Program's faculty, them self, or others
3. Damaging equipment, accessories, or physical facilities.
4. Failure to protect the patient, clinical staff, Program's faculty, themself, or others from accidental harm in the MRI environment.
5. Failure to follow MRI safety policies of the hosting clinical site.
6. Failure to practice Universal Precautions or utilize personal safety devices when appropriate or required.
8. Being under the influence of narcotics, alcoholic beverages, or controlled substances.
9. Failure to comply with the hosting clinical site's safety policies and procedures.

Disciplinary actions will be determined by the severity of the offense:

- 1st offense may lead to:
  - Counseling, additional training, or remedial actions.
  - Grade point deduction
  - Probation
  - Dismissal
- Any 2nd safety infractions will lead to immediate dismissal from the program.

2.31 Clinical Attendance

Students are expected to report to class/clinical on time. Students that report to

class after the stated beginning of class/clinical are tardy. Students that report to clinic tardy must make up the missed time at the instructor's discretion. Repeated violations may result in disciplinary actions.

ABSENTEEISM:

A student who will be late or absent for the day must notify the program staff, the student's clinical instructor, and the clinical preceptor at their clinical facility. Violations of the attendance policy may result in disciplinary actions.

The following are the degrees of disciplinary actions that may be taken as result of a violation of professional standards or a violation of the Forsyth Tech Student Code of Conduct. Violations are cumulative for the duration of the program. Depending on the severity of the violation, a student could be dismissed on their first offense. The following are the procedures of disciplinary action that may be taken due to violation of the professional standards and/or the Forsyth Tech Student Code of Conduct:

2.32 Progressive Disciplinary Steps

1. **Verbal Warning** – The MRI Student Handbook, Forsyth Tech Student Code of Conduct, Program Orientations, and course syllabi all serve as an official verbal warning.
2. **Written Warning** - A written notice that the specific behavior/condition will not be continued or repeated or further disciplinary action will be taken.
3. **Dismissal-**If the violation or infraction is deemed serious enough that the student is no longer eligible to complete the program.

Upon investigation and determination of the nature of the incident and/or behavior, the student will be placed on disciplinary probation for the remainder of the Program. In addition, one or more of the following actions may occur:

- The student may be removed from the class, laboratory, or clinical affiliation in which the incident and/or behavior occurred until the inappropriate or unethical behavior can be corrected.
    - Any applicable course material will be reviewed with the student.
- Dismissal – Upon investigation and determination of the nature of the incident and/or behavior, the student will be dismissed from the Program.
- The student will be notified in writing of the dismissal, and copies of the notice will be sent to the Records Office, the Division Dean, and the

student's faculty advisor.
- Students who are dismissed from the Program due to a violation of the professional standards will receive a failing grade(s) for enrolled courses, and the dismissal will be recorded in the student's permanent record.
- Students who are dismissed from the Program due to a violation of the professional standards policy will not be eligible to re-enter or re-apply to the Program.

Exemptions to Progressive Disciplinary Steps

At the discretion of the MRI Program Faculty, progressive disciplinary action may not apply in instances in which specific student conduct constitutes a serious violation impacting the rights or safety of our patients, families, employees, or students. Step Three (Dismissal) disciplinary action may be invoked for students involved in and/or participating in conduct, which includes, but is not limited to the following:

- Mistreatment of patients, guests, employees, or students.
- Breaches of confidentiality.
- Disclosure of personal computer security codes to others.
- Criminal behavior.
- Being under the influence of alcohol or drugs while on Hospital premises.
- Gross violation of safety rules (see unsafe practice policy)
- Fighting or violent behavior.
- Malicious destruction or theft of patient, visitor, employee, student, or Institutional property.
- Falsification of records or documentation.
- Accessing or discussing protected health information (PHI) for personal gain or with malicious intent.
- Possession or distribution of illegal drugs or controlled substances.
- Possession of firearms, explosives, or concealed weapons while on Institutional grounds.
- Academic or clinical dishonesty.
- Insubordination.
- Deliberate disregard of programmatic or clinical site's institutional policies.

2.33 Imaging Clinical Appeal Policy

Attendance During Appeals: MRI Program students may be permitted to attend didactic, laboratory, or clinical courses until the appeal process is complete and a decision regarding the appeal is made. If a student appeals against an MRI Program policy which may or may not result in dismissal, they should follow the academic appeals process. If the Dean must appoint a committee, it will be made up of five members from the Imaging Department to hear the appeal. Implementation of this process will follow set guidelines from the Forsyth Tech academic appeal policy regarding time imitations, conduct of the appeal and implementation of the decisions. The appeal process must be started within 10 days after the action or decision in question. The decision of the committee is final. Policy infractions will be managed through the due process procedures outlined in this document.

There are four steps for a student to resolve questions concerning policies:

1. Conference with Instructor/Clinical Instructor (clinical)
2. Conference with Program Coordinator
3. Conference with Associate Dean Health Sciences
4. Divisional Academic Appeals Committee

Instructor-Student Conferencing Process:

- If the instructor is not available, the student will contact the appropriate Program Coordinator. If the Program Coordinator is not available, the student will contact the HSD Associate Dean.
- Results of the conference will be clearly outlined in terms of policy infraction.
- Conferencing will be done in a private manner and as timely as possible.
- Program faculty, the Program Coordinator, and the Associate Dean of HSD should be kept updated as appropriate.

Associate Dean/ Divisional Dean Conferencing Process:

- The student will schedule a conference with the Associate Dean of HSD and will provide them with a written letter of appeal within (2 workdays) of conferencing with the Program Coordinator.
- After conferencing with the student, if the issue is not resolved, the Associate Dean will notify the Dean (within 2 workdays) of the need to convene a departmental academic appeals committee.
- The Dean will convene a departmental committee (within 2

workdays) to hear the appeal. The committee will hear the appeal and make a final decision within 2 workdays.

- The Imaging Program has the responsibility of outlining the student's right to appeal to the Dean's level and should inform the student of the method to follow the Divisional Academic Appeals Committee Process. This process will occur after all other appropriate mechanisms have been exhausted.

Divisional Academic Appeals Committee Appeal Process:

1. The committee will consist of five full-time imaging faculty members from the department. The faculty members involved in the appeal with not serve on the committee. The Dean will appoint faculty members and the chair. Members who feel they are not able to render an impartial vote or are objected to by the student will be replaced by the Dean.
2. The Dean will provide copies of the student letter of appeal and any supporting documentation to all committee members.
3. The Dean will arrange the time and location of the appeal and notify the student, the faculty members involved in the appeal, and the committee members.
4. The committee's charge is limited to consideration of the questions brought to the committee in the appeal letter.
5. The decision of the committee will be reached by simple majority vote of the five members of the committee either in favor or not in favor of the appeal. No further recommendations are requested.
6. Confidentiality of the appeals hearing proceedings and decision is essential.
7. The chair will report the committee's decision, which will be final, to the Dean in writing.
8. The Dean will notify the student, instructor(s), and Department Chair of Imaging in writing. Notification will be mailed within 24 hours of the committee's decision. The Dean will take all actions needed to implement the committee's decision.

The MRI Program at Forsyth Tech is committed to the principle of fair and equitable treatment and mutual respect for all members of the college community, especially students. When a student believes that he or she has been treated unfairly by an employee of the College, it is our intention to

ensure that the student has clearly defined avenues of recourse such that the complaint can be resolved fairly and equitably. It is preferable that the complaint be resolved informally; however, when that is not feasible, this procedure will ensure that a formal process for resolution is available. The student must discuss his or her grievance with the individual; if the result of the decision is not satisfactory, then the student can proceed to the next level. Documentation will occur at all levels and will be
filed in the Program Coordinator's office. A grievance must be presented, in writing, within 10 days after the action or decision in question. The program will make every effort to come to a resolution within 14 days of the student's initiation of the grievance process. This period may be extended if more information is needed. Any grievance process that goes beyond level three, refer to the Student Grievance Procedure in the Forsyth Tech Academic & Student Handbook.

What is a Grievance?

The College defines a grievance as a complaint or dispute of a student regarding the College with respect to the following:

1. The interpretation and application of the policies and regulations of the College or the North Carolina Community College System in areas other than disciplinary or academic appeal decisions.
2. Acts of retaliation because of the grievance procedure.
3. Complaints of discrimination based on national origin, race, creed, religion, political affiliation, gender, sexual orientation/preference, age, or disability.
4. Actions that violate the constitutional rights of individuals.

What may not be accepted as a Student Grievance?

• Grievances may not be used to challenge College and Program policies and general procedures.
• Claims against an employee on matters that are unrelated to the employee's job or role at the College.
• Disciplinary decisions will be managed through the Student Conduct Committee.

Grade appeal decisions will be managed through the academic appeals component of the "Student Code of Conduct Grievance" Levels:

- Level 1: Instructor or Clinical Instructor/Preceptor
- Level 2: Program Coordinator/Clinical Coordinator

Note: If the grievance occurs at the clinical site, the student first should contact the Clinical Coordinator and if needed, proceed

to the Program Coordinator.

- Level 3: Department Chair of Imaging

  *Beyond Level 3, refer to the Student Grievance Procedure in the Forsyth Tech Academic & Student Handbook.

Any student who has a concern, that is not considered a grievance, in regard to didactic class, laboratory, clinical or the program should document their concern on the Student Concern Reporting Form (located in lab, BGH 112), or the student can meet with the faculty member directly associated with the area of concern to jointly complete the form. After filling out the form, a discussion of the student's concern should take place. If the result of the discussion is not satisfactory, then the student can proceed to follow the chain of command.

1: Instructor (class/lab) or Clinical Instructor/Preceptor (clinical)
2: Clinical Coordinator (clinical)
2 or 3: Program Coordinator
4: Associate Dean of Imaging

Documentation must occur at all meetings. The documentation is to be filed in the Program Coordinator's office. The program will make every attempt to respond and/or resolve the concern within 14 days.
A Student Concern Reporting Form may be submitted anonymously in the drop box outside Room W203. The form must include enough information and/or details potentially to address the concern. However, if the documentation is anonymous any resolution or follow up may be limited. It is important to mention that the MRI faculty prefer to address and manage any student concern with the individual student to ensure adequate resolution.

2.34 Course Final Grade and Dismissal Policy

A grade of 75 or better is required in all MR courses. Due to the nature of health care and the expected competency level required of technologists, it is the policy of the program that failure of any course in the curriculum will result in the withdrawal of the student from the program due to failure to progress. If students are in good standing with the college, they will be allowed to reapply to the program and if readmitted, re-enter in the semester they left.

It is important for students to understand the following readmission to the MRI Program:

2.35 Readmission Policy for Imaging Programs:

1. Prior to a formal readmission decision, the student should communicate the following to the Program Coordinator:
    - Letter of change of circumstances and desire for admittance submitted to the PC.
    - Depending on the length of time since the students' enrollment, readmittance to the college may be necessary. The student should work with the admissions office to determine the next steps.

2. Upon receipt of the letter for readmittance the Program Coordinator and Imaging Department will:
    - Review the student's letter and prior coursework.
    - Evaluate the current program size and ability to absorb an additional student.
    - Determine the impact of an additional student on current courses and clinical rotations.
    - For students who are not currently enrolled, there may be additional documentation and clinical readiness needed prior to readmission.

3. Below are the current guidelines the college will follow to make a final decision**.**

    i. Readmission is conditional based on the availability of clinical space.
    ii. Courses listed as concurrent in the catalog are to be repeated in that manner.
    iii. Students who have been dismissed for academic reasons will only be permitted one readmission in the same health program. After two unsuccessful attempts in the same health program, the student will be referred to the Counseling Center for Career Guidance.
    iv. Students seeking readmission to a health curriculum will repeat all courses with a grade of "F" and may be required to repeat any health or science course(s) in which they made a "D" or below.
    v. Students must have a 2.00 or better cumulative GPA (calculated only on courses in

curriculum needed for graduation) to be readmitted.

vi. Students will not be allowed to register for health courses (with the prefix of CVS, NMT, NUR, RAD, RCP, RTT, ICV, MRI or SON) until they have been readmitted to the health curriculum.

vii. A new physical examination, or portions thereof, may be required for readmission. In cases of withdrawal due to health (physical, emotional, or cognitive), the problems should be nonexistent or controlled under an appropriate plan of treatment at the time of readmission. This status must be verified by a letter from the attending physician/therapist to the Program Coordinator stating the student is cleared for readmission and participation in the health curriculum.

viii. If a change has occurred in a health curriculum (i.e., sequencing, prerequisites, new courses, electives, etc.) since the student withdrew, the student may have to repeat course(s) and/or semester(s) and/or semester(s) and meet graduation requirements if readmitted.

ix. Any student seeking readmission must meet the admissions requirements which were in effect for the class he/she will be joining.

x. Students who have been absent from a health curriculum for less than three semesters may re-enter at the beginning of the semester in which they withdrew providing they meet all requirements (i.e., GPA, prerequisites). However, students may be required to repeat or audit previous health courses(s) taken while in that curriculum regardless of previous grade earned (prefix ICV, CVS, MRI, NMT, NUR,

RAD, RCP, RTT, or SON).

xi. The student who has been absent from a health curriculum for five or more consecutive semesters may be required to repeat all or some of the health (prefix CVS, NMT, NUR, RAD, RCP, RTT, SON, MRI, ICV) courses regardless of previous grade earned.

xii. The student may be required to take preparatory courses and a specific grade may be required on these courses.

xiii. Unusual cases may be reviewed on an individual basis by the appropriate Program Coordinator.

4. Once the decision is made the student will receive communication from the Program Coordinator. If a decision is made to readmit, there will be a written plan designed by the Program Coordinator and agreed upon by the student for the best path forward.

2.36 Medical Emergency & Student Safety in the Clinical Setting

Procedure for a medical emergency will be identified at all clinical sites during the orientation process. Students will review their sites policies during clinical orientation and complete the associated labs during didactic classes at Forsyth Tech. While students are not expected to direct emergency protocols, they should be competent to facilitate safe practices for themselves, clinical patients, and staff.

Health Technologies Student Accident or Exposure Guidelines When in the Clinical Setting:

The following guidelines are to be followed in the event of a student injury or inadvertent exposure to blood and/or body fluids, or other infectious material via needle while in the clinical setting. If a blood or body fluid exposure occurs, the affected area should be washed with soap and water immediately.

- Notify the Clinical Instructor/Preceptor or designated person immediately.

- The Clinical Instructor/Preceptor or designated person will notify the clinical facility unit leader or course lead instructor.
- A clinical site incident report must be filled out and submitted to the facility unit leader.
- A college incident form must be completed within 24 hours and submitted to campus police (a copy of the form is to be
- shared with the program's Associate Dean and Dean of Health Technologies).
- The student may seek medical attention at the facility of their choice (emergency room, Novant Health Occupational Health (2337 Winter haven Lane, Winston-Salem). Faculty should not transport students in their personal vehicle.
- The student should advise the facility where they seek medical attention that the charges should be filed with the student's insurance company as the primary payer and the college insurance will be the secondary payer (if student does not have health insurance the college will be the primary payer).
- If the student does require the college's insurance to cover any part of the cost, they must complete the College's insurance claim form obtained from the course lead instructor (or program coordinator). The claim form must be submitted to Human Resources.

2.37 Limitation of Patient Care/Scope of Practice/Safe Practice

1. Splints, bandages, traction, or braces, and medication patches cannot be removed without the permission of the physician. Never administer oxygen without a doctor's order. Student technologists should not adjust IV fluids and related pumps/devices.

2. Food and medication are frequently under the purview of a physician's order for several reasons during treatment. Students should never make unilateral decisions about food or drink without consulting the patient's chart or physician. Students are not allowed to dispense or approve medication of any kind.

3. The image results cannot be discussed with any **unauthorized individuals**: friends, family, and other patients. **Authorized Personnel**: Physician, clinician, imaging professionals or facility personnel who need pertinent information.

4. Students should never keep valuables for a patient. All patient possessions must be stored per the clinical facility policy.

5. Critically ill patients require immediate and constant attention. Students should follow the clinical site policies and procedures for all patient care and monitoring tasks.

2.38 Fire Safety

If a fire should occur at the clinical site, remember the abbreviation- ***RACE***.

R - Rescue -	In the event of a fire, rescue patients, yourself, and co-workers.
A - Alarm -	If you see smoke or see a fire, report the nature of the problem. If you cannot use the telephone safely, pull the nearest fire alarm.
C - Contain -	Close windows and doors, as you leave the area.
E - Extinguish -	Fire extinguishers are located throughout each clinical site. Learn the location of fire extinguishers in your area. Remember, these fire extinguishers are only designed to put out small fires.

Procedure for reporting a fire, at all clinical sites, will be identified for students during the orientation process.

2.39 Direct/Indirect Supervision of MRI Students in Clinical

This policy serves to identify the current guidelines for clinical supervision of Magnetic Resonance Imaging students in reference to the direct and indirect provisions stated in the Standards for an Accredited Educational Program in Health Sciences.

Direct Supervision

All students performing Magnetic Resonance Imaging procedures must do so under direct
supervision. The parameters of direct supervision are:

- A registered technologist reviews the request for examination and the scanning protocol with the student.
- A registered technologist evaluates the condition of the patient.
- A registered technologist is always present during the performance of the examination to offer advice and assistance to the student if needed.
- A registered technologist reviews and approves all images.
- A registered technologist is present during any rescanning procedures.

Indirect Supervision

No provisions are established for the performance of Magnetic Resonance Imaging under
indirect supervision. An MRI registered technologist must be present during

the student clinical exam performance.

2.40 Graduation and Degree conference

Students who are ready to complete the program, have 72 hours of core MRI courses with a grade of 75% or higher in each There are also approximately 35-40 hours of general education course that must be completed for an AAS to be awarded. Many students have hours and courses from other colleges and should be proactive towards getting any applicable courses transferred. Policies concerning academic standing, transcripts and transfer credits can be accessed on the FTCC student affairs website https://www.forsythtech.edu/students/apply/transcripts/.

Upon successful completion of the AAS MRI program, students will be approved to sit for the ARRT licensing exam and move to the next phase of their MRI journey.

2.41 Forsyth Technical Community College Health Technology Programs Student Consent and Release

Student's full name (Print)_____

General Policies	
I have received/given access to the MRI/Forsyth Tech Student Handbook and e-catalog. I have read and understand the policies outlined in the MRI and Forsyth Tech Student Handbook and e-catalog. I agree to abide by these policies. I understand the repercussions for failure to abide by these policies.	
Student Signature:	Date:

Media Release	
Pictures of students are taken for the purpose of displaying them on MRI Program bulletin boards and Policy Books. *Occasionally photos are taken in lab or classroom settings for school advertising purposes. I hereby grant permission for a photograph to be taken of myself, and to be displayed on bulletin boards, Forsyth Tech website or publications, or in a slide show.*	
Student Signature:	Date:

Skill Assessment and Partner Care Consent

I am aware that as part of my education in the MRI Program I may be required to serve as a patient for fellow students. Physical contact made during all class/laboratory/clinical experiences in which I participate, serving as a patient or practitioner, will be done in a professional, safe, supervised, and respectful manner.

Student Signature:	Date:

Release of Information to Clinical Agencies
I am aware that as part of my education in the MRI Program the clinical agencies may require the release of personal and demographic information which will be provided by me. I authorize Forsyth Technical Community College to release the information on my behalf as requested by the individual agencies.

Student Signature:	Date:

Reference for Employment or Schools
I hereby grant permission to the MRI Program to serve as a reference for future employers and/or schools.

Student Signature:	Date: