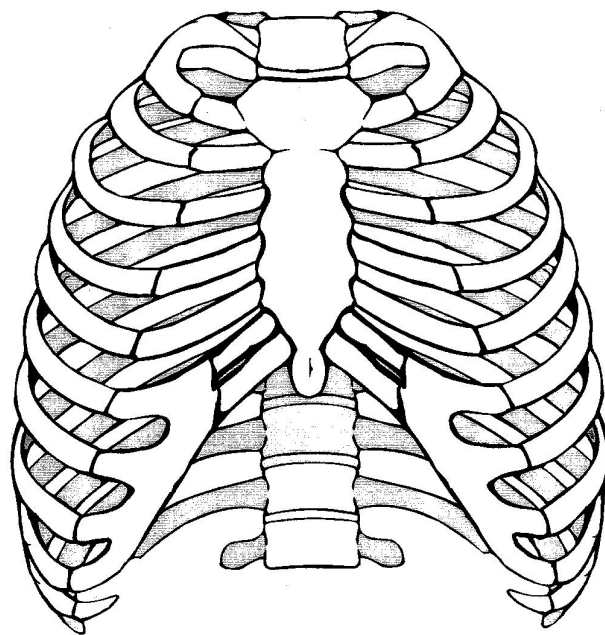




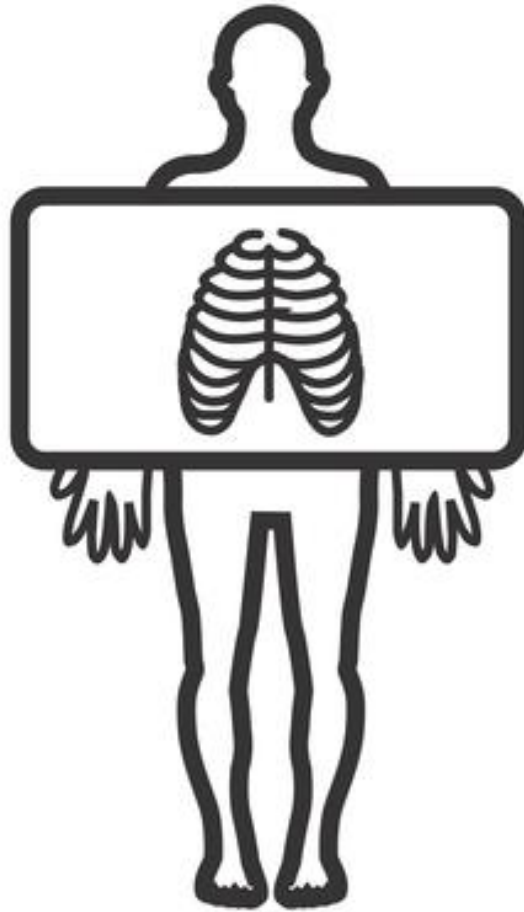
Forsyth Tech
COMMUNITY COLLEGE

RADIOGRAPHY PROGRAM



Student Handbook

2021-2023



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

Radiography Program Student Handbook

Table of Contents

SECTION I: GENERAL PROGRAM INFORMATION	7
1.0 INTRODUCTION	8
1.1 PROGRAM OVERVIEW	8
1.2 PROGRAM HISTORY	8
1.3 PROGRAM MISSION STATEMENT	9
1.4 PROGRAM GOALS	9
1.5 PROGRAM PHILOSOPHY	9
1.6 PROGRAM ACCREDITATION	9
1.7 CLINICAL EDUCATION AFFILIATES.....	10
1.8 INSTITUTIONAL AND PROGRAM ORGANIZATIONAL CHART.....	12
1.9 PROGRAM DIRECTORY.....	13
1.10 FACULTY DESCRIPTIONS	14
1.11 RADIOGRAPHY PROGRAM COSTS.....	16
SECTION 2: RADIOLOGIC TECHNOLOGY PROFESSION	17
2.0 RADIOLOGIC TECHNOLOGIST CERTIFICATION	18
2.1 QUALIFICATIONS FOR CERTIFICATION.....	18
2.3 THREE ATTEMPTS IN THREE YEARS	18
2.4 ARRT STANDARDS OF ETHICS	19
2.5 ARRT ETHICS REVIEW.....	20
2.6 ROLE OF RADIOLOGIC TECHNOLOGIST.....	20
2.7 RADIOGRAPHY TECHNICAL STANDARDS	21
2.8 RADIOGRAPHY PRACTICE STANDARDS.....	25
2.9 SCOPE OF PRACTICE.....	25
SECTION 3: RADIOGRAPHY PROGRAM CURRICULUM	27
3.0 PROGRAM CURRICULUM OUTLINE	28
3.1 CURRICULUM COURSE SEQUENCE	28
3.2 RADIOGRPAHY COURSE DESCRIPTIONS.....	29
3.3 CORRELATION OF DIDACTIC TO CLINICAL EDUCATION	31
3.4 COMPENTENCY-BASED EDUCATION.....	32
3.5 COURSE SYLLABUS.....	32
3.6 ACADEMIC GRADING	32
3.7 ACADEMIC PROGRESSION IN RADIOGRAPHY	33
3.8 VOLUNTARY WITHDRAWAL.....	33
3.9 PROGRAM RE-ADMISSION POLICY	33
SECTION 4: GENERAL INFORMATION	35

4.0 ACADEMIC DISHONESTY, CHEATING, AND RELATED OFFENSES	36
4.1 DISABILITIES STATEMENT	36
4.2 USE OF CONTROLLED SUBSTANCES.....	36
4.3 COLLEGE RESOURCES	37
4.4 INCLEMENT WEATHER.....	38
SECTION 5: RADIOGRAPHY PROGRAM POLICIES	39
5.0 PROGRAM HOURS	40
5.1 COMMUNICATING PROGRAM CHANGES	40
5.2 CLINICAL AFFILIATE RIGHTS	40
5.3 TOBACCO/ NICOTINE PRODUCTS	40
5.4 PROFANITY.....	40
5.5 PROGRAM CURRICULUM CRITICAL REQUIREMENTS	40
5.6 INCOMPLETES.....	42
5.7 CRIMINAL BACKGROUND CHECKS/DRUG SCREENING	42
5.8 ELECTRONIC DEVICES POLICY	42
5.9 DRESS CODE POLICY	43
5.10 INFECTIOUS DISEASES.....	44
5.11 MAGNETIC RESONANCE IMAGING SAFETY POLICY	44
5.11 ROTATION POLICY FOR MAMMOGRAPHY AND HYSTEROSALPINGOGRAM (HSG).....	45
5.12 SOCIAL NETWORKING/ELECTRONIC COMMUNICATIONS POLICY.....	45
5.13 STUDENT EMPLOYMENT POLICY	45
5.14 STUDENT MEDICAL INSURANCE	46
5.15 OPEN LAB.....	46
5.16 PREGNANCY POLICY.....	46
5.17 RADIATION MONITORING DEVICE (RMD) RETURN POLICY	46
5.18 TRANSFERRING INTO THE RADIOGRAPHY PROGRAM.....	47
5.19 RADIATION SAFETY PRACTICE	48
5.20 UNSAFE PRACTICE POLICY	48
5.21 PROFESSIONAL STANDARDS/VIOLATION OF PROFESSIONAL STANDARDS	49
5.22 DISCIPLINARY ACTION	51
5.23 STUDENT GRIEVANCE PROCEDURE	51
5.24 STUDENT CONCERN PROCEDURE	52
SECTION 6: CLASSROOM POLICIES.....	53
6.0 ATTENDANCE	54
6.1 ELECTRONIC DEVICES IN THE CLASSROOM	54
6.2 GENERAL CLASSROOM RULES	54
6.3 MISSED TESTS	54

6.4 RADIOGRAPHIC IMAGES/CD CHECKOUT POLICY	55
6.5 READING AND HOMEWORK ASSIGNMENTS.....	55
6.6 LIBRARY/RESEARCH FACILITIES.....	55
SECTION 7: LAB POLICIES	56
7.0 INTRODUCTION	57
7.1 GENERAL RULES.....	57
7.2 ATTENDANCE OF SCHEDULED LAB SESSION.....	57
7.3 ABSENCE OF SCHEDULED LAB SESSION	58
7.4 DARKROOM SAFETY AND PROCEDURES.....	58
7.5 HANDLING OF LABORATORY EQUIPMENT AND ACCESSORY DEVICES	58
7.6 HANDLING OF WHOLE-BODY PHANTOMS.....	59
SECTION 8: CLINICAL EDUCATION POLICIES AND PROCEDURES.....	60
8.0 INTRODUCTION TO CLINICAL EDUCATION	61
8.1 CLINICAL COURSE	61
8.2 CLINICAL COMPETENCY EVALUATION FLOW CHART.....	63
8.3 COMPETENCY PROCEDURE	64
8.4 SUPERVISION POLICY.....	66
8.5 REPEAT POLICY	67
8.6 SAFE CLINICAL PRACTICE	67
8.7 CLINICAL ATTENDANCE POLICY	68
8.8 CLINICAL EDUCATION ROTATION ASSIGNMENTS.....	69
8.9 CLINICAL CONDUCT	70
8.10 CLINICAL APPEARANCE AND DRESS CODE.....	70
8.11 CLINICAL EXAMS	72
8.12 CLINICAL PERFORMANCE EVALUATIONS.....	73
8.13 ELECTRONIC DEVICES IN CLINICAL.....	75
8.14 HEALTH TECHNOLOGIES STUDENT ACCIDENT OR EXPOSURE GUIDELINES WHEN IN THE CLINICAL SETTING.....	75
8.15 COMMUNICABLE DISEASE GUIDELINES FOR HEALTH TECHNOLOGY PROGRAMS	76
8.16 STUDENT HEALTH AND SAFETY PROGRAM	76
SECTION 9: HEALTH TECHNOLOGIES - IMAGING DIVISION RADIATION SAFETY PLAN	78
9.0 INTRODUCTION	79
9.1 RADIATION SAFETY OFFICER (RSO).....	79
9.2 RADIOGRAPHIC UNIT REGISTRATION	79
9.3 ANNUAL REVIEW	80
9.4 FACULTY TRAINING POLICY	80
9.5 TECHNIQUE CHARTS	80
9.6 RADIATION SAFETY	80

9.7 RADIATION MONITORING DEVICE (RMD)	81
9.8 RMD POLICIES & PROCEDURES.....	81
9.9 PREGNANCY.....	82
9.10 RADIATION PROTECTION SEMINAR.....	83
9.11 ENERGIZED LABORATORIES.....	83
9.12 ENERGIZED LABORATORIES WITHOUT FLUORO CAPABILITIES.....	84
9.13 ENERGIZED LABORATORIES WITH FLUORO CAPABILITIES.....	84
9.14 QUALITY ASSURANCE ACTIVITIES	85
9.15 SIGNAGE	85
9.16 SHIELDING DEVICES	85
9.17 ALARA	86
9.18 SERVICE PROVIDERS	86
SECTION 10: PROFESSIONAL SOCIETIES/ORGANIZATIONS	87
10.0 NORTH CAROLINA SOCIETY OF RADIOLOGIC TECHNOLOGISTS, INC (NCSRT)	88
10.1 AMERICAN SOCIETY OF RADIOLOGIC TECHNOLOGISTS (ASRT).....	88
10.2 NATIONAL CERTIFICATION: THE AMERICAN REGISTRY OF RADIOLOGIC TECHNOLOGISTS (AART).....	88
SECTION 11: STANDARDS FOR AN ACCREDITED EDUCATIONAL PROGRAM IN RADIOLOGIC SCIENCES	89
11.1 STANDARDS FOR AN ACCREDITED EDUCATIONAL PROGRAM IN RADIOGRAPHY	90
11.0 RESOLUTION OF COMPLAINTS RELATING TO NON-COMPLIANCE WITH THE STANDARDS FOR AN ACCREDITED EDUCATIONAL PROGRAM IN RADIOLOGIC TECHNOLOGY.....	90

SECTION I: GENERAL PROGRAM INFORMATION

1.0 INTRODUCTION

The handbook is prepared for use by students in the Associate of Applied Science Program in Radiography and contains specific information about the Radiologic Science Program. For general Forsyth Tech policies, see the Forsyth Tech Academic Catalog & Student Handbook.

Forsyth Technical Community College is an Affirmative Action, Equal Opportunity, ADA, Section 504 institution that does not discriminate on the basis of race, sex, color, age, religion, national origin, disability, or political affiliation with regard to its students, employees or applicants for admission or employment.

1.1 PROGRAM OVERVIEW

You have been selected for the Radiography Program of Forsyth Technical Community College based on your intellectual abilities that will hopefully make you successful in this important area of healthcare. Radiography is a rapidly changing and growing field that will require you to be a competent radiographer, compassionate health care provider and a lifelong learner due to the ever-changing technology and procedures.

The program, by design, attempts to coordinate classroom, laboratory, and clinical education so that the student will move from basic knowledge to competent practice. Your education will be a mix of cognitive, psychomotor, and effective learning experiences. The psychomotor aspects of the program help to ensure that you can enact thought processes into actual physical performance of radiographic procedures and equipment operation. Effective learning experiences help you to grow as a future technologist with an understanding of professionalism, ethical practice and a value system that will ensure your success as an employee.

The faculty are here to assist and direct you as needed, and they will encourage your independence in gaining important knowledge of radiology and healthcare settings. The motivation to learn and the motivation to continue to learn are essentials for program success. Your hard work should be rewarded as you come to program completion with entry into one of the largest allied health professions, which is highly respected for its vital role in diagnosis and treatment of disease.

This program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT) and strives to provide training that is current in terms of correct practice and availability of the most progressive technology presently used in radiology (www.jrcert.org).

1.2 PROGRAM 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 College provides the 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 1993, Cardiovascular/Vascular Interventional and CT/MRI Programs began.

Forsyth Tech is accredited by the Southern Association of College and Schools and is approved by the North Carolina Board of Education.

The Radiography Program is accredited by the Joint Review Committee on Education in Radiologic Technology. Graduates of the program are eligible to sit for the national certification examination offered by the American Registry of Radiologic Technologists.

1.3 PROGRAM MISSION STATEMENT

The mission of the Radiography Program at Forsyth Technical Community College is to actively involve the students in a learning process through diverse educational experiences that include classroom, laboratory, and clinical education and to develop professionals who possess the qualifications necessary to perform the entry-level skills that will enable them to meet the healthcare community needs.

1.4 PROGRAM GOALS

1. The radiography student will be clinically competent.
2. The radiography student will develop critical thinking skills.
3. The radiography student will model professionalism.
4. The radiography student will communicate effectively.
5. The radiography student/graduate will provide the community with entry-level radiographers.

1.5 PROGRAM PHILOSOPHY

It is the educational philosophy of the Radiography Program of Forsyth Technical Community College that knowledge is best gained when the learner is actively involved in the educational process. Furthermore, a variety of educational experiences should be provided to ensure that meaningful learning takes place. The program is also committed to assisting each student to progress in the education process at his/her own rate, dependent on individual ability. Education is a continual process and the tools necessary for continued learning should be strengthened and refined.

1.6 PROGRAM ACCREDITATION

The Forsyth Tech Radiography program is currently accredited through:

The Joint Review Committee on Education in Radiologic Technology (JRCERT)

20 North Wacker Drive, Suite 2850 Chicago, Illinois 60606-3182

Phone: (312) 704-5300

Email: mail@jrcert.org

Website: <http://www.jrcert.org>

In 2017, an eight (8) year accreditation status was awarded to this program.

1.7 CLINICAL EDUCATION AFFILIATES

Community Care Center of Forsyth County

2135 New Walkertown Road

Winston-Salem, NC 27101

Phone: 336-723-7904

Northern Regional Hospital

830 Rockford Street

Mount Airy, NC 27030

Phone: 336-719-7123

Novant Health – Clemmons Medical Center

6915 Village Medical Circle

Clemmons, NC 27012

Phone: 336-893-1000 or 336-893-1590

Novant Health – Forsyth Medical Center

3333 Silas Creek Parkway

Winston-Salem, NC 27103

Phone: 336-718-5530

Novant Health – Kernersville Imaging Center

445 Pine View Drive, Suite 100

Kernersville, NC 27284

Phone: 336-794-4166

Novant Health – Kernersville Medical Center

1750 Kernersville Medical Parkway

Kernersville, NC 27284

Phone: 336-564-4688

Novant Health – Maplewood Imaging Center

3155 Maplewood Avenue

Winston-Salem, NC 27103

Phone: 336-765-2702

Novant Health – Medical Park Hospital

1950 South Hawthorne Road

Winston-Salem, NC 27103

Phone: 336-718-0619

Novant Health – Orthopedics and Sports Medicine - Clemmons

7210 Village Medical Circle, Suite 110

Clemmons, NC 27012

Phone: 336-893-2126

Novant Health – Orthopedics and Sports Medicine - Kernersville

1730 Kernersville Medical Parkway, Suite 204

Kernersville, NC 27284

Phone: 336-277-4460

Novant Health – Orthopedics and Sports Medicine - Robinhood

200 Robinhood Medical Plaza

Winston-Salem, NC 27106

Phone: 336-718-7970

Novant Health Orthopedics & Sports Medicine – Thomasville

211 Old Lexington Road

Thomasville, NC 27360

Phone: 336-474-8153

Novant Health – Piedmont Imaging Center
185 Kimel Park Drive, Suite 100
Winston-Salem, NC 27103
Phone: 336-397-6433

Novant Health – Thomasville Medical Center
207 Old Lexington Road
Thomasville, NC 27361
Phone: 336-476-2500

OrthoCarolina – Kernersville
445 Pineview Drive, Suite 220
Kernersville, NC 27284
Phone: 336-659-3769 or 336-768-1270 (ext. 8385)

OrthoCarolina – Winston-Salem
170 Kimel Park Drive
Winston-Salem, NC 27103
Phone: 336-659-3769 or 336-768-1270 (ext. 8285)

Wake Forest Baptist Health
1 Medical Center Boulevard
Winston-Salem, NC 27157
Phone: 336-716-7070 or 336-716-3560

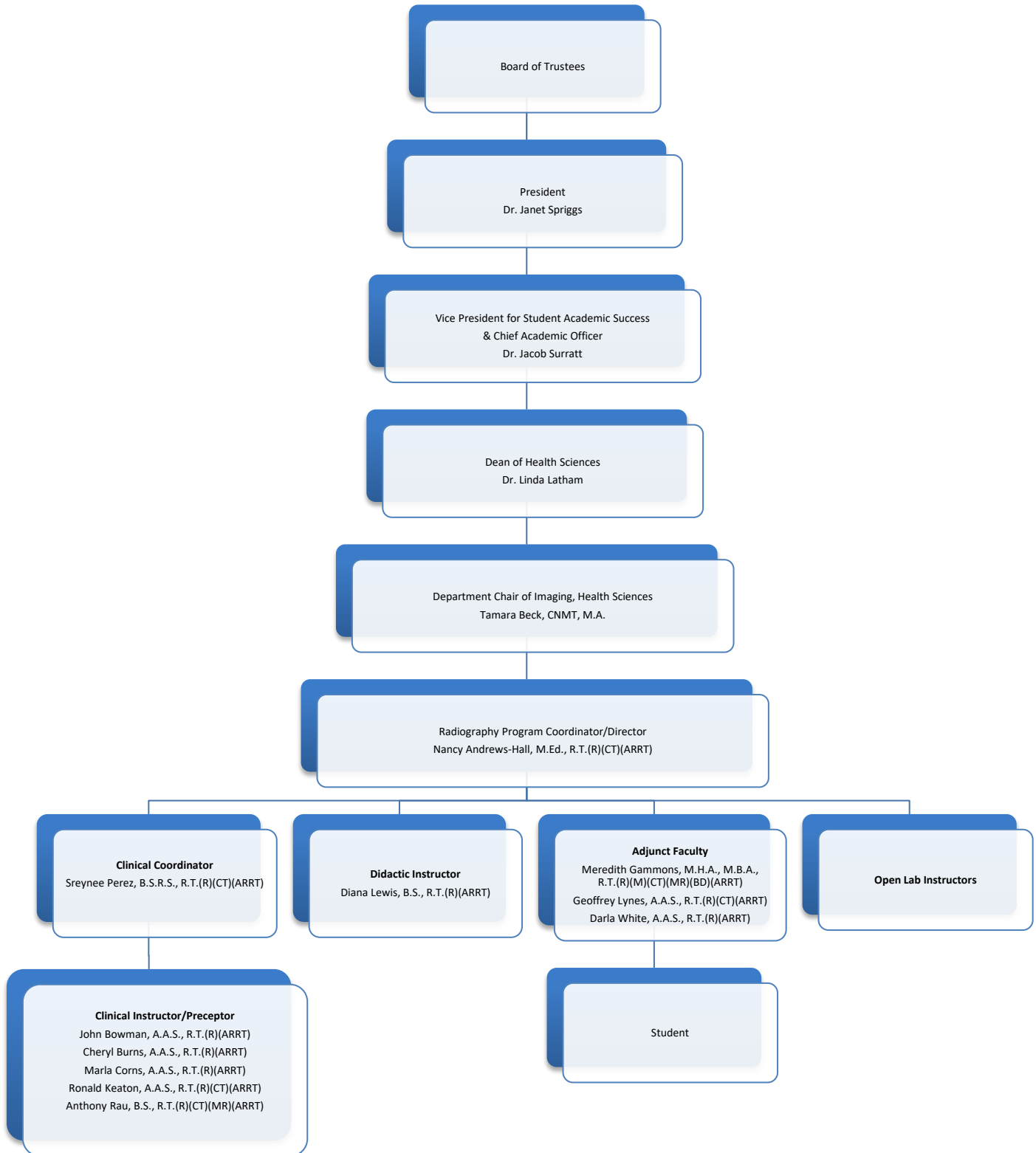
Wake Forest Baptist Health – Comp Rehab
131 Miller Street
Winston-Salem, NC 27103
Phone: 336-716-8280

Wake Forest Baptist Health - Cornerstone Imaging
1814 Westchester Drive, Suite 100
High Point, NC 27262
Phone 336-702-2312

Wake Forest Baptist Health – High Point Medical Center
601 North Elm Street
High Point, NC 27262
Phone: 336-878-6037

Wake Forest Baptist Health – Orthopaedic and Sports
Medicine
611 North Lindsay Street
High Point, NC 27262
Phone: 336-905-6129

1.8 INSTITUTIONAL AND PROGRAM ORGANIZATIONAL CHART



MEDICAL ADVISOR

Andrew Deibler, M.D.

RADIOGRAPHY PROGRAM COORDINATOR/DIRECTOR

Nancy Andrews-Hall, M.Ed., R.T.(R)(CT)(ARRT)

nandrews-hall@forsythtech.edu

Office Phone: (336) 734-7433

RADIOGRAPHY CLINICAL COORDINATOR

Sreynee Perez, B.S.R.S., R.T.(R)(CT)(ARRT)

sperez@forsythtech.edu

Office Phone: (336) 734-7166

DIDACTIC INSTRUCTOR

Diana Lewis, B.S., R.T.(R)(ARRT)

dmlewis@forsythtech.edu

Office Phone: (336) 757-3251

PART-TIME CLINICAL INSTRUCTORS/PRECEPTORS

John Bowman, A.A.S., R.T.(R)(ARRT)

jb Bowman@forsythtech.edu

Cheryl Burns, A.A.S., R.T.(R)(ARRT)

cburns@forsythtech.edu

Marla Corns, A.A.S., R.T.(R)(ARRT)

mcorns@forsythtech.edu

Ronald Keaton, A.A.S., R.T.(R)(CT)(ARRT)

rkeaton@forsythtech.edu

Anthony Rau, B.S., R.T.(R)(MR)(CT)(ARRT)

arau@forsythtech.edu

ADJUNCT FACULTY

Meredith Gammons, M.H.A., M.B.A., R.T.(R)(M)(CT)(MR)(BD)(ARRT)

mgammons@forsythtech.edu

Geoffrey Lynes, A.A.S., R.T.(R)(CT) (ARRT)

glynnes@forsythtech.edu

Darla White, A.A.S., R.T.(R)(ARRT)

dpwhite@forsythtech.edu

S

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 the 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 preceptors as needed with scheduling, instruction, etc.
- Observes and visits students in the clinical setting during clinical educational experience
- Advisement of students
- Serve on committees

Full-Time Didactic Faculty

A campus faculty member that will be responsible for:

- Preparing and maintaining course outlines and objectives, instructing, and evaluating student progress
- Participating in the accreditation and assessment processes
- Supporting the program director to assure effective program operations
- Participating in periodic review and revision of course materials
- Maintaining current knowledge of professional discipline
- Maintaining appropriate expertise and competence through continuing professional development
- Course instruction and evaluation
- Advisement of students
- Serve on committees

Adjunct Faculty

A campus faculty member that will be responsible for:

- Preparing and maintaining course outlines and objectives, instructing, and evaluating students, and reporting progress
- Participating in the assessment process, as appropriate
- Participating in periodic review and revision of course materials
- Maintaining current knowledge of the professional discipline, as appropriate
- Maintaining appropriate expertise and competence through continuing professional development

Clinical Instructor/Preceptor

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

1.11 RADIOGRAPHY PROGRAM COSTS

Program costs varies year-to-year and are subject to change without notice. The following is offered as an estimated cost for the Associates in Applied Science Degree in Radiography.

Description	Amount
In-State Tuition (\$76.00 per credit hour x 70 credit hours)	\$5,320.00
Out-of-State Tuition (\$268.00 per credit hour x 70 credit hours)	\$18,760.00
Textbooks and Course Materials	\$1,200.00
Malpractice Insurance (<i>Liability insurance must be purchased annually before engaging in lab or clinical practice. The cost varies according to the credit program and insurance carrier</i>)	\$36.00
Uniforms	\$225.00
Program Lab Fees	\$600.00
Student Activity Fees	\$140.00
Technology Fees	\$240.00
Marker Fees	\$25.00
Campus Parking Fees	\$70.00
Clinical Parking Fees	\$40.00
Criminal background/Drug Screening: <i>Average</i>	\$100.00
ASRT membership	\$35.00
Kettering Registry Review (<i>estimated average</i>)	\$150.00
NCSRT membership (<i>Optional 2 years</i>)	\$55.00
NCSRT annual conference (<i>Optional</i>) <ul style="list-style-type: none"> • Conference fee, travel, room, and meals estimated average 	\$300.00 - \$500.00
Grand Total Estimated Costs: In-State resident	\$8,181.00 to \$8,681.00
Total Estimated Costs: Out-of-State resident	\$21,621.00 to \$22,121.00

SECTION 2: RADIOLOGIC TECHNOLOGY PROFESSION

2.0 RADIOLOGIC TECHNOLOGIST CERTIFICATION

Students successfully completing the Associate in Applied Science Degree in Radiography will be eligible to sit for the registry examination administered by the American Registry of Radiologic Technologists (ARRT). Successful completion of the ARRT examination provides certification for individuals to practice as a registered radiologic technologist. **Students convicted of a felony or misdemeanor charges could be excluded from actual clinical experience and/or the opportunity to take the ARRT certification examination.** Visit www.arrt.org for more information.

2.1 QUALIFICATIONS FOR CERTIFICATION

In accordance with the American Registry of Radiologic Technologist's "Equation for Excellence", candidates for ARRT certification must meet three steps of requirements to be eligible for ARRT certification and registration.

They are as follows:

1. Ethics
2. Education
3. Examination

Ethics

Each candidate for certification and every applicant for renewal of registration must, according to the governing documents, "be a person of good moral character and must not have engaged in conduct that is inconsistent with ARRT Rules of Ethics, and they must "agree to comply with the ARRT Rules and Regulations and the ARRT standards of Ethics." ARRT investigates all potential violations in order to determine eligibility. 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 for certification and for ongoing registration. The Code of Ethics serves as an aspirational guide to achieving the highest standards of patient care.

Education

Eligibility for certification also specifies the satisfaction of educational preparation requirements. For the primary category's eligibility requires the successful completion of the respective discipline's formal educational program that is accredited by a mechanism acceptable to the ARRT. Candidates must also demonstrate competency in didactic coursework and an ARRT specified list of clinical procedures.

Examination

Lastly, eligibility requires candidates for certification, after having met all other qualifications, to pass an examination developed and administered by the ARRT. The examination assesses the knowledge and cognitive skills underlying the intelligent performance of the tasks typically required of staff technologists practicing within the respective disciplines. Examination content is specified on the ARRT website and in the respective handbook for each discipline.

2.3 THREE ATTEMPTS IN THREE YEARS

You may make three attempts within three years to pass a certification and registration examination. The three-year period begins with the starting date of your initial ARRT examination window. After three unsuccessful examination attempts or three years—whichever comes first—your eligibility ends.

If you fail an ARRT examination three times within three years, you will have to regain eligibility to apply for certification and registration. For more information, visit www.arrt.org.

The American Registry of Radiologic Technologists

Principles of Professional Conduct / Standards of Ethics

This Code shall serve as a guide by which Radiologic Technologists evaluate their professional conduct as it relates to patients, colleagues, other members of the healthcare team, healthcare consumers, and employers. 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-8efc-1b352310eabc/arrt-standards-of-ethics-2020.pdf>

- The radiologic technologist acts in a professional manner, responds to patient needs, and supports colleagues and associates in providing quality patient care.
- The radiologic technologist acts to advance the principal objective of the profession to provide services to humanity with full respect for the dignity of mankind.
- The radiologic technologist delivers patient care and service unrestricted by the concerns of personal attributes or the nature of the disease or illness, and without discrimination because of race, color, creed, religion, national origin, sex, marital status, status with regard to public assistance, familial status, disability, sexual orientation, gender identity, veteran status, age, or any other legally protected basis.
- The radiologic technologist practices technology founded upon theoretical knowledge and concepts, uses equipment and accessories consistent with the purposes for which they were designed, and employs procedures and techniques appropriately.
- The radiologic technologist assesses situations; exercises care, discretion, and judgment; assumes responsibility for professional decisions; and acts in the best interest of the patient.
- The radiologic technologist acts as an agent through observation and communication to obtain pertinent information for the physician to aid in the diagnosis and treatment of the patient and recognizes that interpretation and diagnosis are outside the scope of practice for the profession.
- The radiologic technologist uses equipment and accessories, employs techniques and procedures, performs services in accordance with an accepted standard of practice, and demonstrates expertise in minimizing radiation exposure to the patient, self, and other members of the healthcare team.
- The radiologic technologist practices ethical conduct appropriate to the profession and protects the patient's right to quality radiologic technology care.
- The radiologic technologist respects confidences entrusted in the course of professional practice, respects the patient's right to privacy, and reveals confidential information only as required by law or to protect the welfare of the individual or the community.

- The radiologic technologist continually strives to improve knowledge and skills by participating in continuing education and professional activities, sharing knowledge with colleagues, and investigating new aspects of professional practice.
- The radiologic technologist refrains from the use of illegal drugs and/or any legally controlled substances which result in impairment of professional judgment and/or ability to practice radiologic technology with reasonable skill and safety to patients.

2.5 ARRT ETHICS REVIEW

Candidates for certification and Radiologic Technologists are held to strict ethics standards in order to be eligible for initial certification and annual renewal of registration. Individuals who are considering enrolling in an educational program or who are more than six months in advance of graduation may want to take advantage of the ARRT Ethics Review Pre-Application process in order to determine their ethics eligibility. Individuals who apply for a primary pathway to certification must answer three ethics-related questions on the application form. The questions address convictions, court-martials, disciplinary action by regulatory or other certification boards, and educational honor code violations. The Ethics Review Pre-Application is reserved for those who are not yet enrolled in an ARRT-recognized educational program or enrolled in an ARRT recognized educational program and are at least six months away from graduation. The Ethics Review Pre-Application provides an early ethics review of violation(s) that would otherwise need to be reported on your Application for Certification when you have completed an ARRT recognized educational program and may be used for the following circumstances:

- Criminal proceedings, including:
 - Misdemeanor charges and convictions
 - Felony charges and convictions
 - Military court-martials; and/or
- Disciplinary actions taken by a state or federal regulatory authority or certification board; and/or
- Honor code violations (college, institution, hospital, etc.)

Applicants with such a history are strongly advised to contact the ARRT and go through the preapplication process to determine future eligibility status before enrolling in the radiography program. Further information can be found at the ARRT website: <https://www.arrt.org/or> by calling the ARRT at (651) 687- 0048. Decisions on ARRT applicant eligibility based on criminal background are solely the responsibility of the ARRT.

2.6 ROLE OF RADIOLOGIC TECHNOLOGIST

Radiologic Technologists (Radiographers) are the medical personnel who perform diagnostic imaging examinations and administer radiation therapy treatments. A Radiologic Technologist uses critical thinking and independent judgment to obtain a diagnostic imaging study while maintaining quality patient care and minimizing radiation exposure. They are educated in anatomy, patient positioning, examination techniques, equipment protocols, radiation safety, and basic patient care. Technologists are employed in acute care settings, ambulatory care settings, physicians' offices, in education, and in management or sales positions. They may specialize in a specific imaging technique such as bone densitometry, cardiovascular interventional radiography, computed tomography, mammography, magnetic resonance imaging, nuclear medicine, quality management, sonography, or general radiography. The radiologic technologists who specialize in radiation therapy, which is the delivery of high doses of radiation to treat cancer and other diseases, are radiation therapists and medical dosimetrists. Registered radiologic technologists must complete at least two years of formal education in an accredited two- or four-year educational program at an academic institution and must pass a

national certification examination. To remain registered, they must earn continuing education credits. The Associate in Applied Science Degree in Radiography prepares students to become members of the health care team in a variety of settings. Radiographers must be sensitive to the patients' physical and psychological needs, pay attention to detail, follow instructions, work as part of a team, and demonstrate mechanical ability and manual dexterity. Radiographers operate sophisticated equipment to help physicians and surgeons, and other health practitioners diagnose and treat patients.

2.7 RADIOGRAPHY TECHNICAL STANDARDS

Our program technical standards have been developed to help students understand nonacademic standards, skills, and performance requirements expected of a student in order to complete an associate degree in Radiography (Radiologic Technology). A prospective radiography student must demonstrate the physical and psychological ability to provide safe, competent patient care. Prospective students must assess their own abilities when choosing radiography as a career. To understand the physical and psychological qualifications needed for successful radiographers, the program technical standards are listed below.

If an accommodation is necessary to participate in the program, it is imperative to identify a reasonable accommodation to 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 needs to be in place prior to the start of the program, or it may delay the student's ability to start the program. It is the student's responsibility to contact the DSO and request accommodations.

Students will be asked to acknowledge their ability to meet the program technical standards by signing a confirmation statement at program's orientation.

Skills	Description	Specific Examples
Communication	Oral and written communication skills to communicate in English with accuracy, clarity, and efficiency with patients, their families, and other members of the healthcare team, including non-verbal communication, such as interpretation of facial expressions, affect and body language.	<ul style="list-style-type: none"> Communicate with clear dictation and in a concise manner to patients, visitors, and other healthcare professionals in various departments Read, type, and write appropriate instructions and documentations in patients' charts, notes, and medical records accurately Elicit information and cooperation (i.e.: obtaining patient history, giving breathing instructions) Describe changes in a patient's mood, activity, and posture Perceive nonverbal communication (i.e.: pain, lack of understanding) Recognize and report critical patient information to other caregivers
Critical Thinking/ Problem-Solving	Critical thinking and problem-solving skills sufficient for sound clinical judgment during the performance of radiography.	<ul style="list-style-type: none"> Organize and accurately perform in proper sequence, and within a specified time, the steps required for radiographic procedures Ability to remember and recall large amounts of information

		<ul style="list-style-type: none"> • Ability to accurately read and transcribe illegible handwriting • Ability to quickly assess patients' conditions and other emergent situations, determine appropriate courses of action, request assistance or delegate responsibilities to coworkers, and/or respond as needed • Solve problems (i.e.: mathematical computation) • Comprehend three-dimensional relationships (i.e.: anatomical relations) • Understand the spatial relationship of structures • Critical Thinking/ability sufficient for clinical judgement (i.e.: modification of radiographic procedures and/or technical factors to accommodate patient age/or condition)
Emotional/Behavioral	Emotional stability and appropriate behavior sufficient to accept responsibility/accountability for actions	<ul style="list-style-type: none"> • Deliver unbiased patient care • Establish rapport with patients, healthcare workers, instructors, and peers • Ability to calmly and respectfully cope in stressful situations, emergency situations, or in situations involving other personnel • Accept constructive and professional criticism • Follow all program, college, and clinical site policies • Expected to maintain confidentiality at all times • Expected to adhere to the ARRT/ASRT Code of Ethics and Rules of Ethics
Environmental Tolerance	<p>Radiography students may be exposed to communicable diseases and/or blood and body fluids, toxic substances, medical preparations, latex, and ionizing radiation.</p> <p>Students shall use appropriate precautions at all times.</p>	<ul style="list-style-type: none"> • May care for patients with a communicable disease and shall provide all care using universal precautions • Possible exposure to chemicals, irritants, and latex and shall follow all safety and health protection guidelines • May be exposed to ionizing radiation and shall follow radiation protection guidelines at all times • Ability to work in a noisy environment with frequent interruptions
Hearing	Auditory ability sufficient for physical monitoring and assessment of patient health care needs and during performance of radiography.	<ul style="list-style-type: none"> • Ability to hear, understand, and respond appropriately to comments, questions, and instructions given in person, over the phone, or from a distance including those given when personnel are wearing surgical masks. • Ability to hear various equipment and background sounds during equipment operations

		<ul style="list-style-type: none"> • Hear normal speaking level sounds, auscultatory sounds, and auditory alarms (i.e.: equipment, monitors, fire alarms, call bells, emergency signals, and cries for help)
Motor Skills	<p>Motor abilities required for radiography include gross and fine muscular movements, equilibrium, strength, and functional use of all combined senses for the safe handling of patients, self, and equipment.</p>	<ul style="list-style-type: none"> • Regularly reach up to six (6) feet off the floor • Push, pull, or lift fifty (50) pounds of weight • Transfer immobile patients from stretcher to radiographic table with some assistance from other personnel • Push standard and oversized patient wheelchairs, as well as mobile (portable) x-ray equipment to and from various areas • Standing for extended periods of time along with frequent bending and kneeling • Wearing a five (5) pound lead apron for extended periods of time • Elicit information from patients by palpation, percussion, testing muscle strength and function, penetration of the skin, and other diagnostic maneuvers • Safely perform diagnostic, therapeutic procedures and/or laboratory procedures • Provide other patient services and patient associated services • Safely lift, manipulate, and use equipment • Manual dexterity for patient positioning and with accessory devices and equipment controls • Move within confined spaces such as treatment rooms, patients' rooms, or operating rooms • Administer CPR and maintain current certification
Professional Attitudes and Interpersonal Skills	<p>Present with professional appearance and demeanor; follow instructions and safety protocols and maintain a positive attitude. Demonstrate honesty and integrity beyond reproach.</p> <p>Possess interpersonal abilities sufficient to interact with individuals, families, groups, etc. from a variety of social, emotional, cultural, and intellectual backgrounds.</p>	<ul style="list-style-type: none"> • Allow mature, sensitive, and effective relationships with patients, healthcare workers, instructors, and peers (interpersonal skills) • Maintain all professional boundaries • Display flexibility and adaptations while working with diverse populations • Effectively work within a team and workgroups • Provide prompt and safe completion of all patient care responsibilities • Exhibit ethical behaviors and exercise good judgement • Display the following: • Compassion

		<ul style="list-style-type: none"> • Empathy • Integrity • Concern for others • Interest and motivation
Smell	Olfactory ability sufficient to detect significant environmental and patient odors.	<ul style="list-style-type: none"> • Detect odors from patient (foul smelling drainage, alcohol breath) • Detect burning and/or smoke
Technological	Adaptability and skills to utilize current electronic, digital, and medical technologies.	<ul style="list-style-type: none"> • Utilize keyboard or touchscreens for selection and inputting of clinical data into consoles, computers, and charts • Adapting to different technologies within the medical field, especially medical imaging
Vision/Observation	Normal or corrected visual ability sufficient for accurate observation and performance of radiography in bright, normal, or dim lighting.	<ul style="list-style-type: none"> • Visually monitor patients • View anatomy and appropriate imaging techniques on radiographic images displayed on hard copy or computer screen, all within a low light environment • Observe changes in equipment operation (i.e.: warnings) • Safely work in dimly lit rooms • Observe and evaluate (i.e.: patient's body habitus, image receptor sizes and selection of appropriate radiographic exposure factors.) • Skillfully use precision instruments such as microscopes, oscilloscopes, gauges, control panels, and other electronic and digital equipment • Observe the results of certain stimuli (i.e.: medication reaction, patient's skin color changes such as cyanosis or pallor)
Other	Adapting to Radiography Program course and clinical schedules, including any unforeseen changes.	<ul style="list-style-type: none"> • Ability to work long and/or varied hours • Tolerate physically taxing workloads • Adapt to changing environments (i.e.: flexible schedules)

This document is intended to serve as a guide regarding the physical, emotional, intellectual, and psychosocial expectations placed on a student. This document cannot include every conceivable action, task, ability, or behavior that may be expected of a student. Meeting these technical standards does not guarantee employment in this field upon graduation. Ability to meet the program's technical standards does not guarantee a student's eligibility for any licensure, certification exam, or successful completion of the degree program.

2.8 RADIOGRAPHY PRACTICE STANDARDS

The practice of radiography is performed by a segment of health care professionals responsible for the administration of ionizing radiation to humans for diagnostic, therapeutic or research purposes. A radiographer performs radiographic procedures and related techniques, producing images at the request of and for interpretation by a licensed independent practitioner. The complex nature of disease processes involves multiple imaging modalities. Although an interdisciplinary team of radiologists, radiographers and support staff plays a critical role in the delivery of health services, it is the radiographer who performs the radiographic examination that creates the images needed for diagnosis. Radiography integrates scientific knowledge, technical skills, patient interaction and compassionate care resulting in diagnostic information. A radiographer recognizes patient conditions essential for successful completion of the procedure.

Radiographers must demonstrate an understanding of human anatomy, physiology, pathology, and medical terminology. Radiographers must maintain a high degree of accuracy in radiographic positioning and exposure technique. They must possess, utilize, and maintain knowledge of radiation protection and safety. Radiographers independently perform or assist the licensed independent practitioner in the completion of radiographic procedures. Radiographers prepare, administer and document activities related to medications in accordance with state and federal regulations or lawful institutional policy. Radiographers are the primary liaison between patients, licensed independent practitioners, and other members of the support team. Radiographers must remain sensitive to the physical and emotional needs of the patient through good communication, patient assessment, patient monitoring and patient care skills. As members of the health care team, radiographers participate in quality improvement processes and continually assess their professional performance. Radiographers think critically and use independent, professional, and ethical judgment in all aspects of their work. They engage in continuing education to enhance patient care, public education, knowledge, and technical competence.

2.9 SCOPE OF PRACTICE

The scope of practice of the medical imaging professional includes:

- Apply knowledge of anatomy, physiology, positioning, and radiographic techniques to accurately demonstrate anatomical structures on a radiograph or imaging receptor
- Perform diagnostic radiographic procedures
- Apply principles of ALARA to minimize exposure to patient, self, and others; determine exposure factors to achieve optimum radiographic techniques with minimum radiation exposure to the patient and self
- Evaluate radiographic images for appropriate positioning and image quality
- Determining radiographic technique exposure factors
- Apply the principles of radiation protection to the patient, self, and others
- Provide patient care and comfort
- Verify informed consent
- Recognize emergency patient conditions and initiate lifesaving first aid and basic life support procedures.
- Evaluate the performance of radiologic systems, know the safe limits of equipment operations, and report malfunctions to the proper authorities
- Exercise independent judgment and discretion in the technical performance of medical imaging procedures
- Participate in radiologic quality assurance programs, performing ongoing quality assurance activities
- Receive, relay and document verbal, written and electronic orders in the patient's medical record
- Provide patient/public education related to radiologic procedures and radiation protection safety
- Utilize physical strengths and capabilities by assisting and lifting patients onto and from radiographic tables; carrying various accessory equipment; and manipulating radiographic equipment

- Demonstrate expected ethical and professional behavior
- Communicate and interact effectively with patients, the members of the healthcare profession, and others

SECTION 3: RADIOGRAPHY PROGRAM CURRICULUM

3.0 PROGRAM CURRICULUM OUTLINE

The Radiography curriculum prepares the graduate to become a radiographer, a skilled health care professional who uses radiation to produce images of the human body. Course work includes clinical rotations to area health care facilities, radiographic exposure, image processing, radiographic procedures, physics, pathology, patient care and management, radiation safety, quality assurance, anatomy and physiology, and radiobiology. Graduates of accredited programs are eligible to apply to take the American Registry of Radiologic Technologists' national examination for certification and registration as a medical radiographer. Graduates may be employed in hospitals, clinics, physicians' offices, medical laboratories, government agencies and industry.

3.1 CURRICULUM COURSE SEQUENCE

	Class	Lab	Clinical	Credit
1st Semester FALL				
ENG 111 Writing and Inquiry	3	0	0	3
RAD 110 Rad Intro & Patient Care	2	3	0	3
RAD 111 RAD Procedures I	3	3	0	4
RAD 151 RAD Clinical ED I	0	0	6	2
BIO 163 Basic Anatomy & Physiology	4	2	0	4
Total	12	8	6	17
2nd Semester SPRING				
MAT 143	2	2	0	3
RAD 112 RAD Procedures II	3	3	0	4
RAD 121 Image Production I	2	3	0	3
RAD 161 RAD Clinical ED II	0	0	15	5
Total	7	8	15	15
3rd Semester SUMMER				
RAD 122 Image Production II	1	3	0	2
RAD 141 Radiation Safety	2	0	0	2
RAD 171 RAD Clinical ED III	0	0	9	3
Humanities/Fine Arts Elective			0	3
ENG 112 Writing/Research Or ENG 114 Prof Research & Reporting	3	0	0	3
Total	6	3	9	13
4th Semester FALL				
RAD 211 RAD Procedures III	2	3	0	3
RAD 231 Image Production III	1	3	0	2
RAD 251 RAD Clinical ED IV	0	0	21	7
PSY 118 Interpersonal Psychology	3	0	0	3

Or PSY 150 General Psychology				
Total	6	6	21	15
5th Semester SPRING				
RAD 261 RAD Clinical ED V	0	0	21	7
RAD 271 Radiography Capstone	2	3	0	3
Total	2	3	21	10
Total Credit Hours: 70				

The Radiography Curriculum is Subject to Change.

3.2 RADIOGRAPY COURSE DESCRIPTIONS

RAD 110 RAD Introduction & Patient Care

This course provides an overview of the radiography profession and student responsibilities. Emphasis is placed on basic principles of patient care, radiation protection, technical factors, and medical terminology. Upon completion, students should be able to demonstrate basic skills in these areas. Prerequisite: Acceptance into Radiography Program.

RAD 111 RAD Procedures I

This course provides the knowledge and skills necessary to perform standard radiographic procedures. Emphasis is placed on radiography of the chest, abdomen, extremities, bony thorax, and pelvis. Upon completion, students should be able to demonstrate competence in these areas.

RAD 151 RAD Clinical Education I

This course introduces patient management and basic radiographic procedures in the clinical setting. Emphasis is placed on mastering positioning of the chest and extremities, manipulating equipment, and applying principles of ALARA. Upon completion, students should be able to demonstrate successful completion of clinical objectives.

RAD 112 Radiographic Procedures II

This course provides the knowledge and skills necessary to perform standard radiographic procedures. Emphasis is placed on radiography of the skull, spine, and gastrointestinal, biliary, and urinary systems. Upon completion, students should be able to demonstrate competence in these areas.

RAD 121 Image Production I

This course provides the basic principles of radiographic image production. Emphasis is placed on image production, x-ray equipment, receptor exposure, and basic imaging quality factors. Upon completion, students should be able to demonstrate an understanding of basic principles of radiographic image production.

RAD 161 RAD Clinical Education II

This course provides additional experience in patient management and in more complex radiographic procedures. Emphasis is placed on mastering positioning of the spine, pelvis, head and neck, and thorax and adapting procedures to meet patient variations. Upon completion, students should be able to demonstrate successful completion of clinical objectives.

RAD 122 Image Production II

This course is designed to continue to develop the concepts and principles in the field of radiologic technology. Emphasis is placed on advanced digital principles and production. Upon completion students should be able to demonstrate an understanding of the advanced principles of digital imaging production.

RAD 141 Radiation Safety

This course covers the principles of radiation protection and radiobiology. Topics include the effects of ionizing radiation on body tissues, protective measures for limiting exposure to the patient and personnel, and radiation monitoring devices. Upon completion, students should be able to demonstrate an understanding of the effects and uses of radiation in diagnostic radiology.

RAD 171 RAD Clinical Education III

This course provides experience in patient management specific to advanced radiographic procedures. Emphasis is placed on applying appropriate technical factors to all studies and transitioning to mastering positioning of advanced studies. Upon completion, students should be able to demonstrate successful completion of clinical objectives.

RAD 211 Radiographic Procedures III

This course provides the knowledge and skills necessary to perform standard and specialty radiographic procedures. Emphasis is placed on radiographic specialty procedures, advanced imaging, radiographic pathology, and image analysis. Upon completion, students should be able to demonstrate an understanding of these areas.

RAD 231 Image Production III

This course is designed to continue to develop the concepts and principles in the field of radiologic technology. Emphasis is placed on complex imaging production and principles, quality control and quality assurance in the imaging sciences. Upon completion students should be able to demonstrate an understanding of the advanced radiographic equipment, and quality control programs.

RAD 251 RAD Clinical Education IV

This course provides the opportunity to continue mastering all basic radiographic procedures and to attain experience in advanced areas. Emphasis is placed on equipment operation, pathological recognition, pediatric and geriatric variations, and a further awareness of radiation protection requirements. Upon completion, students should be able to demonstrate successful completion of clinical objectives.

RAD 261 RAD Clinical Education V

This course is designed to enhance expertise in all radiographic procedures, patient management, radiation protection, and image production and evaluation. Emphasis is placed on developing an autonomous approach to the diversity of clinical situations and successfully adapting to those procedures. Upon completion, students should be able to demonstrate successful completion of clinical objectives.

RAD 271 Radiography Capstone

This course provides an opportunity to exhibit 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 the knowledge required of any entry-level radiographer.

3.3 CORRELATION OF DIDACTIC TO CLINICAL EDUCATION

		MASTER CLINICAL EDUCATION PLAN		
Fall Semester	Spring Semester	Summer Semester	Fall Semester	Spring Semester
<p><i>RAD 111</i> Procedures I</p> <p><i>RAD 110</i> RAD Intro. & Patient Care</p> <p><i>RAD 151 (6)</i> Clinical ED I</p>	<p><i>RAD 112</i> Procedures II</p> <p><i>RAD 121</i> Image Production I</p> <p><i>RAD 161 (15)</i> Clinical Ed. II</p>	<p><i>RAD 122</i> Image Production II</p> <p><i>RAD 141</i> Radiation Safety</p> <p><i>RAD 171 (9)</i> Clinical Ed. III</p>	<p><i>RAD 211</i> Procedures III</p> <p><i>RAD 231</i> Image Production III</p> <p><i>RAD 251 (21)</i> Clinical Ed. IV</p>	<p><i>RAD 271</i> Radiography Capstone</p> <p><i>RAD 261 (21)</i> Clinical Ed. V</p>
<p>Energized labs:</p> <p><i>Positioning:</i> Chest, Abdomen, Upper and Lower Extremities, Thorax and Pelvis</p> <p><i>RAD Intro. & Patient Care:</i> Patient transfer, vital signs, sterile technique, communication, medical terminology, orders and request, technical factors, drug administration, and basic radiation protection</p>	<p>Energized labs:</p> <p><i>Positioning:</i> Skull, Gastrointestinal, Urinary, Biliary & Spines</p> <p><i>Imaging I:</i> Image production, x-ray tubes, exposure factors, receptor exposure, collimation, grids, and basic imaging quality factors</p>	<p>Energized labs:</p> <p><i>Imaging II:</i> Radiographic equipment, digital image acquisition and processing, post processing, acquisition errors, and data management</p> <p><i>Radiation Safety:</i> Radiation protection, radiobiology, interactions with matter, effects of ionizing radiation on body tissues, protective measures for patient & personnel, units, and radiation monitoring devices</p>	<p>Energized labs:</p> <p><i>Positioning:</i> Trauma, specialty procedures, head/special projections, additional imaging modalities, pathology, and image analysis</p> <p><i>Imaging III:</i> Advanced principles and production of digital imaging, digital equipment, quality control and quality assurance</p>	<p>Energized labs:</p> <p><i>Capstone:</i> Problem-solving skills, critical thinking and combining all aspects of didactic and clinical education</p>

3.4 COMPETENCY-BASED EDUCATION

The radiography curriculum is founded on principles of Competency-Based Education (CBE) and designed to develop knowledge, skills, and attitudes. The educational and clinical experiences are directed toward preparing individuals to perform pre-specified tasks of an occupation or profession under “real world conditions” and to perform these tasks at a level of accuracy and speed required of radiographers on the job. The curriculum is designed to allow students to achieve competence in the responsibilities of the profession before leaving the education program. Radiography courses and clinical experiences are arranged in a sequential manner and proceed to a new experience only when the student has achieved the specified level of competence in the previous task/course. Continuous evaluation and reinforcement of student performance is critical in CBE. This means that the student will perform the task or procedure under direct supervision of the educator/technologist. During each step, the student’s ability and performance are evaluated.

3.5 COURSE SYLLABUS

All program courses beginning with the prefix RAD have a course syllabus whose purpose is to give the student an outline of the content of the course and a guide for completion of the course requirements. The syllabus contains the following information:

- Course prefix, number, and title
- Course rationale, description, and outline
- Textbook(s) to be used
- Objectives to be achieved
- Method of evaluation and grading procedure
- Critical Requirements: Assignment for a course which may or may not carry a grade, but must be successfully completed for a passing grade to be issued for the course
- Number of competencies required to continue in the program (clinical)
- Various program/course policies

3.6 ACADEMIC GRADING

At the end of each radiology course for which a student is registered, he/she will receive a final grade. Final grades for Major Curriculum coursework in Radiologic Technology will be based on one hundred percent (100%) and will be determined as follows:

Forsyth Tech Grading Scale:

Letter Grade	Final Number Grade
A	90-100
B	80-89
C	70-79
*D	60-69
*F	59 and below
*W	Withdraw before the 60% mark. Does not affect GPA.

*Below minimal requirement for progression in Radiography Program

3.7 ACADEMIC PROGRESSION IN RADIOGRAPHY

Students who achieve a minimum of 78 (C) or higher overall competency for each Radiography (RAD) course will be eligible to progress in the Radiography program. **Numerical grades below 78% (C) in Radiography (RAD) courses are considered unsatisfactory attainment of course competencies and will result in failure to progress in the program.**

3.8 VOLUNTARY WITHDRAWAL

If a student elects to voluntarily withdraw from the Radiography Program, there is no guarantee that he/she will be readmitted to the program. Students withdrawing from the program and wishing to reenter will be required to re-qualify and re-apply for program admission based on the Forsyth Tech Re-admission Policy and the Radiography Program Re-Entry Policy.

Prior to withdrawal from any course of instruction, the student should contact their instructor to determine their best options. It is the student's responsibility to submit a drop form to officially withdraw from the course to avoid a grade of "F". The drop form can be found at <http://coursedrop.forsythtech.edu>.

3.9 PROGRAM RE-ADMISSION POLICY

A completed application must be submitted to the Admissions Office. Students applying for readmission must write a letter to the Program Coordinator stating (1) the reason(s) they desire to be readmitted and (2) the circumstances, which have changed since withdrawal that would indicate that they will successfully complete their health education. Upon receipt of the application and letter, the following guidelines will be used in making decisions regarding readmission:

- Readmission is always conditional on the availability of clinical space.
- Courses listed as concurrent in the catalog must be repeated in that manner.
- 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.
- 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.
- Students must have a 2.00 or better cumulative GPA (calculated only on courses in curriculum needed for graduation) in order to be readmitted.
- 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.
- 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 nonexistence 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's health will not be hindered by readmission and participation in the health curriculum.
- 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 meet graduation requirements if readmitted.
- Any student seeking readmission must meet the admissions requirements, which were in effect for the class he/she will be joining.
- All supportive required materials for readmission must be submitted.

- All students will be sent a letter in writing by the Program Coordinator of the conditions necessary for readmission.
- 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).
- A 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 ICV, CVS, NMT, NUR, RAD, RCP, RTT or SON) courses regardless of previous grade earned.
- The student may be required to take preparatory courses and a specific grade may be required on these courses.
- Unusual cases may be reviewed on an individual basis by the appropriate Program Coordinator.

SECTION 4: GENERAL INFORMATION

4.0 ACADEMIC DISHONESTY, CHEATING, AND RELATED OFFENSES

The Radiography 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 Handbook). Students are expected to be motivated and constructive in their pursuit of learning. **Forsyth Tech has the right to dismiss any student at any time when it is deemed necessary in order to safeguard Forsyth Tech’s ideals of scholarship and character, and to secure compliance with regulations.**

4.1 DISABILITIES STATEMENT

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 accommodations 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 accommodations/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 accommodations.

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](#).

4.2 USE OF CONTROLLED SUBSTANCES

Rule 7- Narcotics, Alcoholic Beverages and Controlled Substances

“A student shall not knowingly or negligently own, possess, use, transport or be at any time under the influence of any narcotic drug, alcoholic beverage or any other controlled substance (as controlled substance is defined by the North Carolina General Statutes or 21 U.S.C. subsection 812) while on Forsyth Tech grounds or during the time when a student is participating in any Forsyth Tech activity, function or event off Forsyth Tech grounds.”

“Use of any drug authorized by medical prescription from a registered physician shall not be considered a violation of this rule. However, students shall be held strictly accountable for their behavior while under the influence of prescribed medicines.”

Any violation of the **Rule 7- Narcotics, Alcoholic Beverages and Controlled Substances** policy will result in disciplinary action(s) that will follow the Forsyth Tech Student Code of Conduct procedure located in the Forsyth Tech Student Handbook. The Radiography Program also considers it a Violation of Professional Standards (*Program Policies, Violation of Professional Standards*).

In addition, if the above violation were to take place in a clinical setting; the facilities Security will be notified, the student will be removed from any patient area and may be detained for their safety. The Clinical Preceptor and/or facilities representative will contact the Clinical Coordinator and/or Program Coordinator immediately. They in turn will attempt to contact the student's emergency contact person, to arrange safe transport from the clinical setting. *Note: The student will be disciplined based on college and program's policies and may also be subject to disciplinary action(s) according to the clinical facility.*

4.3 COLLEGE RESOURCES

	Student Resource	Location	Phone Number
Admissions	<ul style="list-style-type: none"> To check on the status of your application To change your program of study 	Strickland Center Room 2361	(336) 734-7556
Bookstore	<ul style="list-style-type: none"> To purchase textbooks To buy Forsyth Tech memorabilia To sell back books at the end of the semester 	Technology Building 1 st Floor <i>OR</i> Strickland Center	(336) 734-7289 (336) 734-7884
Campus Police	<ul style="list-style-type: none"> Criminal Activity Breaking and entering Larceny of any property, personal or Forsyth Tech owned Fights on campus 	Carolina Annex	(336) 734-7243
Career Services	<ul style="list-style-type: none"> For job search resources For job search skills training (networking, interviewing, and resume writing) 	Strickland Center Room 2414	(336) 734-7156
Cashier's Office	<ul style="list-style-type: none"> To pay tuition and fees To purchase parking decals 	Allman Center 2 nd Floor	(336) 734-7210
Counseling Center	<ul style="list-style-type: none"> For academic counseling For personal counseling and referrals For career testing and guidance Job search resources and skills training 	Strickland Center Room 2414	(336) 734-7280
Disability Services	<ul style="list-style-type: none"> To offer support to students with documented disabilities (notetaking, interpreting, extension of testing time, assisted technology, etc.) 	Strickland Center Room 2414	(336) 734-7155
Financial Aid	<ul style="list-style-type: none"> For financial assistance for school and/or childcare For scholarship information Veteran's benefits 	Allman Center Suite 261	(336) 734-7235
Health Technologies Academic Resource Center	<ul style="list-style-type: none"> For assistance with test taking anxiety For best note-taking practices Resources and referrals for all students 	Bob Greene Hall Room W121B	(336) 757-3241
Information Desk	<ul style="list-style-type: none"> General questions Service offerings Contact a specific office 		(336) 723-0371
Main Campus	<ul style="list-style-type: none"> Switch board operator 		(336) 723-0371
Minority Male Success Initiative	<ul style="list-style-type: none"> Personal, professional, and educational support for minority men at Forsyth Tech Resources and referrals for all students 	Allman Center Room 114	(336) 734-7385

Learning Center	<ul style="list-style-type: none"> • For tutorial services • To use the on-campus computer lab • To get information on how to make up missed tests 	Ardmore Hall Room 143	(336) 734-7480
Library	<ul style="list-style-type: none"> • To access book and resource materials both on-campus and off-campus via interlibrary loan 	Ardmore Hall 1 st Floor	(336) 734-7219
Record/Registrar	<ul style="list-style-type: none"> • To get academic transcripts • To report address or name changes • To fill out your intent to graduate form • To withdraw for a course • To apply for a tuition refund 	Strickland Center Room 2361	(336) 734-7556
Shugart Women's Center	<ul style="list-style-type: none"> • To provide personal, professional, and education support for women at Forsyth Tech • Resources and referrals for all students 	Hauser Hall Room 206	(336) 734-7280
Student Life and Engagement	<ul style="list-style-type: none"> • Student Government Association and other student clubs • Athletic programs • Student ID • Campus events and activities 	Technology Building Room 124	(336) 734-7509
Student Success Center/Counseling	<ul style="list-style-type: none"> • For campus information • For academic advising support services 	Strickland Center Room 2414	(336) 734-7156
Technical Support	<ul style="list-style-type: none"> • Website: http://its.forsythtech.edu • Walk-in: M-TH 8:00am-7:00pm & F 8:00am-3:00pm • Blackboard tech assistance 	Allman Hall Room 106	(866) 517-3567
Veteran Resource Center	<ul style="list-style-type: none"> • Veteran support services 	Technology Building Room 123	(336) 734-7403

4.4 INCLEMENT WEATHER

If the college is closed due to inclement weather, all classes including clinical (day, night, and weekend) will be cancelled. Students are not allowed to participate in clinical education when the college is closed. No make-up time is permitted during holidays or when Forsyth Tech is closed. For more information regarding inclement weather, refer to "School Closing Due to Inclement Weather" in the Forsyth Tech Catalog and Student Handbook at: <https://www.forsythtech.edu/catalog/2021/page/academic-information/>

SECTION 5: RADIOGRAPHY PROGRAM POLICIES

5.0 PROGRAM HOURS

Students of the Forsyth Tech Radiography Program may be asked to complete program requirements or recommendations without advanced notice during the hours of 5:00 a.m.-11:00 p.m. Monday through Friday, including Night and Weekend Clinical during 3rd, 4th, and 5th semesters. Students should prearrange their schedules by these determined hours. These hours will be in effect for the duration of the program. However, at no time will a student be scheduled more than 40 hours per week of combined classroom, laboratory, and clinical hours.

5.1 COMMUNICATING PROGRAM CHANGES

Program policies, requirements, and guidelines are subject to change without notice. Any changes to the above supersede any previous versions. All changes will be presented in a memo form in a timely manner to each student and/or faculty affected by the change.

5.2 CLINICAL AFFILIATE RIGHTS

All clinical affiliates have the right to refuse access of 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 dismissed from the program.

5.3 TOBACCO/NICOTINE PRODUCTS

No use of tobacco/nicotine products including cigarettes, e-cigarettes, vaporizers, and "chewing or spit tobacco" will be allowed within the Radiography classroom, laboratory, or clinical settings at any time. Violation of the policy will result in immediate removal of the student from the classroom, laboratory, or the clinical setting. The program considers this a direct violation of the Professional Standards (*Program Policies, Violation of Professional Standards*).

5.4 PROFANITY

Use of profanity or inappropriate language is not permitted in the classroom, laboratory, or the clinical setting. Violation of profanity policy may result in removal from the area. The Radiography Program considers this a Violation of Professional Standards (*Program Policies, Violation of Professional Standards*).

5.5 PROGRAM CURRICULUM CRITICAL REQUIREMENTS

GENERAL

Medical Terminology: Successful completion with an average grade of 80 or higher on all medical terminology quizzes.

Radiation Protection Seminar: This is a mandatory lecture designed to give the student basic knowledge in medical uses of radiation protection. Each student must sign the attendance roster before admittance to a clinical facility. The Radiography Clinical Coordinator along with the Radiation Safety Officer will keep the roster on file.

PROCEDURE LABS

RAD 111- Procedures I, RAD 112- Procedures II & RAD 211- Procedures III

- Students must score 78% or higher on each Energized Lab Test
- If a student does not pass, they will be allowed to retest (their initial lab test score is recorded for grade)

- Any retest must be taken on the designated retest date
- Only one retest is allowed per semester
- A second failed attempt will result in a grade of F for the course and the student will be dismissed from the program (*Program Policies, Program Readmission Policy*)
- Students are expected to arrive prior to or at their assigned testing time. Point deductions will apply for lateness.

CLINICAL ONBOARDING

CastleBranch: All required documents must be downloaded on or before the designated due date(s).

- Malpractice - paid in 1st and 4th semesters
- Medical Forms – completed and including all immunizations
- Cardiopulmonary Resuscitation Course (CPR) American Heart Association - Health Care Provider/Basic Life Support – must be kept current throughout the entire program

Clinical Packets: All required documents from the various clinical affiliates whether online and/or hard copy must be completed on or before the designated due date(s).

CLINICAL

Clinical Participation: The student is required to complete all course objectives at each rotation by **actively participating** in the clinical settings. Clinical participation is a component of the final clinical course grade.

Clinical Competencies: A minimum number of clinical competencies must be met for each clinical course (see course syllabus).

Night/Weekend Clinical: Evening and weekend shift rotations are valuable learning experiences. Students are exposed to a variety of procedures that may not be available during day clinical rotations. Night and weekend clinical may be scheduled anytime during 3rd, 4th, and 5th semesters.

RAD 171- Clinical Education III Simulated Competency Exam

- The exam score will be calculated as 20% of the final clinical course grade
- Students must score 78% or higher on each Competency Exam
- If a student does not pass, they will be allowed to retest (their initial score is recorded for grade)
- Only one retest is allowed per course
- A second failed attempt will result in a grade of F for the course and student will be dismissed from the program (*Program Policies, Program Readmission Policy*)
- Students are expected to arrive prior to or at their assigned testing time. Point deductions will apply for lateness.

RAD 261- Clinical Education V Final Exit Competency Exam

- The exam score will be calculated as 30% of the final clinical course grade
- Students must score 78% or higher on each Competency Exam
- If a student does not pass, they will be allowed to retest (their initial score is recorded for grade)
- Only one retest is allowed per course
- A second failed attempt will result in a grade of F for the course and student will be dismissed from the program (*Program Policies, Program Readmission Policy*)

- Students are expected to arrive prior to or at their assigned testing time. Point deductions will apply for lateness.

NOTE: Students are expected to be able to successfully learn, practice, perform, and test on procedures using all types of patients for all Procedures Energized Lab Tests, Simulated Competency Exam, and the Final Exit Competency Exam. Any Forsyth Tech faculty member may serve as the “patient” on simulated test. Testing evaluation can be performed by any Forsyth Tech Radiography Program faculty. However, there is no guarantee that students will have the same evaluator(s) or “patient” for testing.

5.6 INCOMPLETES

Didactic

- Radiography faculty needing to assign a grade of Incomplete must complete the *Terms of Agreement for Incomplete Grade Form*. A copy of this agreement will be sent to the student's email as proof of their knowledge of the content of this form.
- An Incomplete should only be given after the instructor has communicated with the student and the student wants to attempt to complete the class after the course has ended. The student should understand the work which must be completed to remove the “Incomplete” grade and agree to the completion dates as outlined in the *Terms of Agreement Incomplete Grade Form*.
- If the student does not complete the work as outlined and earn a passing grade by the due date, the grade of “I” automatically becomes an “F” and is computed in the same manner as an “F” grade or in case of emergencies, such as COVID-19, “IE” automatically becomes an “F” and is computed in the same manner as an “F” grade. Student must understand that it is their responsibility to contact the instructor (or Program Coordinator) regarding questions and turning in assignments as outlined above.

Clinical

- Absences exceeding the number of clinical days provided as make-up days at the end of the semester will result in an **Incomplete** for the clinical course. Make-up days are listed on the student’s clinical schedule.
- If absences have exceeded make-up time allotted for a clinical course, a grade of **INCOMPLETE** will be recorded. Any student receiving more than **(1) one Incomplete** will be dismissed from the program (*Program Policies, Program Readmission Policy*).
- Failure to complete clinical course objectives OR course contact hours will result in an F issued for the clinical course and the student will be dismissed from the program.

5.7 CRIMINAL BACKGROUND CHECKS/DRUG SCREENING

Clinical facilities require criminal background checks and/or drug screening for students assigned to their facility for clinical education. Clinical facilities can request drug screening at any time. In addition, national and/or state registry and/or licensure boards **may prohibit** eligibility for registry or licensure based on criminal background records (www.arrt.org).

5.8 ELECTRONIC DEVICES POLICY

The Radiography Program faculty considers the use of electronic devices to be disruptive in the classroom, laboratory, and clinical settings. Therefore, students must not have electronic devices **out** or **on** while attending class, lab, or clinical. Electronic devices include, but are not limited to, smart watches, laptops, netbooks, PDAs, and recording devices. Photos are **not** to be taken in the classroom, laboratory, or clinical settings.

Use of electronic devices are a direct violation of most, if not all clinical affiliates' policies, rules, and regulations. They may even interrupt the operation of some medical devices. Therefore, this policy will be strictly enforced.

Students who do not comply with the program's electronic devices policy will be considered in violation of the Professional Standards (Program Policies, Violation of Professional Standards), and appropriate disciplinary actions will be taken.

5.9 DRESS CODE POLICY

GENERAL

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 or lab excluding:

- short shorts
- tank tops
- spaghetti straps tops
- torn jeans
- halter tops
- offensive tee shirts
- see-through attire
- bare midriffs and bare backs
- plunging necklines
- low-cut pants with underwear showing

If this type of clothing is worn in class or lab, the student will be asked to leave since this does not present a professional image. **Note:** It is up to the instructor's discretion to determine clothing appropriateness.

LAB

In addition to the general dress code, dresses and/or skirts are not allowed during labs due to the nature of positioning for procedures courses and with participation during imaging experiments.

CLINICAL

Students are expected to dress and be professional at all times in their assigned clinical rotations. The program has taken into consideration dress codes from all clinical affiliates and has established the following to ensure compliance.

- Required Uniform:
- Uniforms (2 sets of colored scrubs)
- Scrub Jacket
- Both uniform and scrub jacket must have Forsyth Tech Student monogram
- Optional:
 - Males - a white short-sleeve T- shirt may be worn under scrub top (No long-sleeves)
 - Females - a white camisole or T-shirt may be worn under scrub top (No long-sleeves)
- Required Shoes:

- Polished white leather shoes without insignias
- ONLY white socks or white hose
- Other Requirements:
 - Forsyth Tech ID badge
 - Clinical facility ID badge
 - Lead markers (2 sets)
- Dosimeter - students must wear their dosimeter for all clinical assignments and abide by the Radiation Monitoring Device (RMD) policies (Forsyth Technical Community College Health Technologies-Imaging Division Radiation Safety Plan, Radiation Monitoring Device (RMD). Failure to do so will result in removal of the student from clinical. Time missed must be made up.

The above items must be worn at all times during clinical assignments.

5.10 INFECTIOUS DISEASES

Anyone experiencing the following and/or any other condition that may be suspected as potentially harmful must immediately contact the Program Coordinator or Clinical Coordinator. The individual will not be allowed to attend class, lab or clinical until medically cleared. The following list is not inclusive:

- | | |
|----------------------------|-------------------------------|
| ● Diarrhea | ● Herpes |
| ● Vomiting | ● Upper respiratory infection |
| ● Fever | ● Rash |
| ● Open sores | ● Boils |
| ● Parasitic infestations | ● Strep or strep infection |
| ● Infectious mononucleosis | ● Conjunctivitis |
| ● Chicken pox/Shingles | ● Measles |

For additional information regarding infectious disease procedure, visit:

<https://www.forsythtech.edu/catalog/2021/page/student-code-of-conduct/CODE+OF+CONDUCT>

5.11 MAGNETIC RESONANCE IMAGING SAFETY POLICY

Magnetic Resonance Imaging (MRI) utilizes a powerful magnetic field to produce images of the human body. Any metallic object(s) on or within the body could be affected by the strong magnetic field if you were to enter the scan room. As radiography students your clinical rotations could place you in, or near the MR environment, or directly in the scan room.

Below is the Magnetic Resonance Imaging Safety Protocol:

- All students are required to complete an MRI Safety Screening Form during orientation that will screen for any potential magnetic wave or radiofrequency hazards.
- Students must take part in an MRI safety presentation prior to the start of Clinical.
- Students must complete a second MRI Safety Screening Form prior to 4th semester.
- If a student answers yes to any of the screening questions and it is determined that their safety is at risk, they will not be allowed to go near or enter the MR environment. The Clinical Coordinator will communicate the known safety hazards of the student to the Clinical Instructor(s)/Preceptor(s) as well as to the respective clinical

sites the student will be attending. The Clinical Coordinator will ensure an additional safety tour indicating prohibited areas is provided to the student on the first day of clinical at their assigned clinical site(s).

- Be advised, the MR magnet is always **ON**.
- Students must remove all metallic object(s) (specific list of hazards will be covered in the MRI safety presentation) before entering the MR environment.
- The student will be responsible to advise the Clinical Coordinator immediately of any changes that could potentially alter the results of the MRI Safety Screening Form.

5.11 ROTATION POLICY FOR MAMMOGRAPHY AND HYSTEROSALPINGOGRAM (HSG)

All students, male, and female will be offered the opportunity to participate in clinical mammography rotations and HSG exams. The program will make every effort to place a male student in a clinical mammography rotation if requested; however, the program is not in a position to override clinical setting policies that restrict clinical experiences in mammography and HSG exams to female students. Male students are advised that placement in these rotations is not guaranteed and is subject to the availability of a clinical setting that allows males to participate in mammographic imaging and HSG procedures. The program will not deny female students the opportunity to participate in mammography rotations if clinical settings are not available to provide the same opportunity to male students. Additionally, the policy may be applied to any imaging procedures performed by professionals who are of the opposite gender of the patient.

The program's policy regarding student clinical rotations in mammography is based on the sound rationale presented in a position statement on student clinical mammography rotations adopted by the Board of Directors of the Joint Review Committee on Education in Radiologic Technology (JRCERT) www.jrcert.org

5.12 SOCIAL NETWORKING/ELECTRONIC COMMUNICATIONS POLICY

The Radiography faculty expects students to practice professional behaviors of confidentiality as well as to follow legal and ethical standards of conduct as stated in the Forsyth Tech Student Code of Conduct, ARRT Code of Ethics, and Radiography Program Standards. Students who use any web-based services that allow individuals to construct a public or semi-public profile and form relationships with other users of the same site who access their profile must abide by this policy. Students will be expected to maintain confidentiality policies (HIPAA) at all times. No reference is to be made about clinical sites, patients, clinical staff, or Forsyth Tech employees at any time. Failure to abide by this policy will result in disciplinary action, which may include dismissal from the Radiography program (*Program Policies, Violation of Professional Standards*).

Note: Students are not allowed to have Forsyth Tech RAD Program faculty as contacts on any social media site.

5.13 STUDENT EMPLOYMENT POLICY

Students may accept employment with clinical affiliates 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 will not be counted toward fulfillment of clinical course hours.

While Forsyth Technical Community College's Radiography Program does not control student employment in radiology departments of its clinical affiliates or other areas, the following statements should be adhered to by all students enrolled: **"At no time must a student in the program be on-site working as an employee of the clinical affiliates while**

enrolled in regularly scheduled Radiography Program classes/labs/clinical that occur concurrently.” If this were to happen, the student will be dismissed from the program.

3rd shift work, prior to an 8:00 a.m. clinical, is strongly discouraged. If a student reports to the clinical site impaired due to fatigue, he/she will be removed under the unsafe policy.

Along with the Work Policy: excessive radiation dosage reading(s) will be considered in continuation in Forsyth Tech clinical courses.

5.14 STUDENT MEDICAL INSURANCE

All students are strongly recommended to have personal medical insurance coverage. Neither Forsyth Tech nor the clinical affiliates are liable for injury to individual students. Since the student is not employed by the school or the clinical facility, the student will be responsible for all incurring expenses.

5.15 OPEN LAB

Open Lab is a valuable resource for radiography students, with hours available during late afternoons and evenings. Open Lab provides scheduled times for tutoring and skills practice. Open Lab time can be scheduled online, on a first come, first served, basis depending on availability. Note: students are NOT allowed to utilize open lab during any of their regularly scheduled class or clinical times.

5.16 PREGNANCY POLICY

At any time during the program, if a student were to become pregnant, they must follow the pregnancy guidelines listed in the Radiation Safety Plan (*Forsyth Technical Community College Heath Tech Division- Imaging Department Radiation Safety Plan*).

Summation of the pregnancy guidelines:

- Are consistent with applicable federal regulations and state laws
- That written notice of declaration is **voluntary**
- Offers student continuance in the program without clinical education modifications
- Offers student continuance in the program with modifications (see guidelines for specific modifications)
- Offers written withdrawal declaration with readmission based on college readmission policy
- Declaration may be rescinded at any time

The Forsyth Technical Community College Heath Tech Division- Imaging Department Radiation Safety Plan contains the pregnancy policy in its entirety.

5.17 RADIATION MONITORING DEVICE (RMD) RETURN POLICY

In conjunction with the Forsyth Technical Community College Health Technologies-Imaging Division Radiation Safety Plan (Section V), the following pertains specifically to the Radiography program.

All radiography students and faculty are responsible for timely return of their radiation dosimeter.

- Dosimeters are exchanged on a two-month cycle.
- Dosimeters are located in the Radiography Lab, Bob Greene Hall Room 112.
- Students and faculty are responsible for exchanging their dosimeter within 5 business days of notification to their Forsyth Tech e-mail account.
- Radiation Exposure Reports based on the result of the radiation monitoring will be available quarterly upon receipt of the report.
- Students and faculty must review, sign, and acknowledge the Radiation Exposure Report within 5 business days of notification to their Forsyth Tech e-mail account.
- It is the responsibility of students and faculty to monitor their own radiation exposure. Contact RSO or Clinical Coordinator with any concerns.
- Immediately contact the Clinical Coordinator in the event of a lost or damaged dosimeter. *Note: students are not allowed to participate in lab, open lab, or clinical without a valid dosimeter.*

5.18 TRANSFERRING INTO THE RADIOGRAPHY PROGRAM

If a student is currently enrolled in a radiography program at another college or university and they are interested in transferring into the radiography program at Forsyth Tech, there are specific requirements that must be met for the student to be considered for admission beyond the first semester.

The student must have successfully completed at least the first semester of a radiography program and the first semester must have included radiography coursework (i.e., RAD 110, RAD 111 and RAD 151 clinical) to be considered for transfer.

Application Process:

All transfer applicants must consult with Nancy Andrews-Hall, Program Coordinator of Radiography, nandrews-hall@forsythtech.edu **prior** to starting the application process to discuss eligibility and appropriate placement. Applicants may be required to repeat RAD courses that have been taken in a different sequence than our curriculum sequence at Forsyth Tech.

Additional Requirements:

- Admission is based on clinical and laboratory availability.
- The student must initiate the admission process and schedule a meeting with the Radiography Program Coordinator.
- Meet all admissions requirements for the college and the Radiography program as posted in the admission MAR packet and college catalog.
- Submit a letter from their current Radiography Program Director stating they left their current program in good academic and behavioral standing.
- The student will be required to complete a background check and drug screen through the Forsyth Technical Community College provider at their expense.
- A medical form, all immunizations and CPR requirements must be up to date.
- The student will be required to pass written and laboratory skills tests for placement.
- The student will be placed in the appropriate semester as determined by testing and the Program Coordinator (student may have to repeat some courses). **After consultation and confirmation of eligibility with Mrs. Andrews-Hall, applicants should proceed with the following steps:**

1. Go to the Admissions Office and/or complete the online Residency Determination Service (RDS) and Application for Admission. When asked for the program of study on the application, you must indicate or select “Radiography Transfer”.
2. Submit official transcript from high school/GED.
3. Submit official transcripts from **ALL** colleges attended.
4. Applicants must also demonstrate English, Reading and Math Competencies to be eligible for program consideration. (See the Radiography MAR packet for details about these requirements.)

All transcripts, placement test scores (if needed) and current TEAS scores from outside colleges must be submitted at time of application.

TEAS (Test of Essential Academic Skills) Requirement:

All qualified applicants will be required to submit valid TEAS results with a passing rate of 60% or higher. If the student has taken the most recent version of TEAS within the past 2 years, they must submit those scores with their application.

If the student has not taken the TEAS or their test has outdated, they will be eligible to take the test at Forsyth Tech. They will need to let Admissions know if they plan to take TEAS here.

Once the student’s file is complete, it will be sent to the radiography department for review and a final determination will be made in regard to admitting transfer applicants. Forsyth Tech readmitted students will have priority over transfer applicants. Ranking will occur just as for beginning radiography students.

PLEASE NOTE: Transfer applicants must have a “B” or higher in RAD courses and a “C” or higher in the radiography related courses (See the Radiography MAR packet) to be eligible for consideration for transfer.

- **Eligible radiography transfer applicants are accepted on a space availability basis. Due to the determination of space availability and appropriate placement, transfer applicants will be notified by the radiography department regarding their status. Questions about transfer status should be directed to the Radiography Program Coordinator. Final approval for transfer is approved by the Radiography Program Coordinator.**

5.19 RADIATION SAFETY PRACTICE

Students are not allowed to hold image receptors during any radiographic procedure. Additionally, students are not allowed to hold patients during any radiographic procedure when an immobilization method is the appropriate standard of care. This applies to lab, open lab, and clinical.

5.20 UNSAFE PRACTICE POLICY

Violations of the Unsafe Practice Policy are effective for the duration of the program and are cumulative.

If a student performs an unsafe procedure in the clinical setting or in the lab environment causing possible harm to the patient, others, or themselves, the student will be removed from the clinical assignment or lab until the incident is investigated and appropriate action is determined.

- 1st incident will result in:
 - 10-point reduction of the final course grade

- Written documentation of the violation, additionally, depending on the severity of the incident, will result in:
 - Probation for the remainder of the program
 - Removal from classroom, lab, or clinical setting (amount of time will be determined)
 - Dismissal from the program
 - Other appropriate disciplinary actions
- 2nd incident results in immediate dismissal from the program

5.21 PROFESSIONAL STANDARDS/VIOLATION OF PROFESSIONAL STANDARDS

The Radiography Program at Forsyth Tech is committed to producing radiologic technologists who will provide the highest quality of care to their patients. Students are expected to conduct themselves in a professional manner at all times. As a student, you represent the Forsyth Tech Radiography 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 preceptors, and clinical staff. In the event of any concerns, students are to follow the program's grievance policy or the 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 policies, 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. Infractions can range from minor to severe and carry appropriate disciplinary consequences. Severe infractions may result in immediate dismissal from the Radiography Program.

Violations of the Professional Standards are effective for the duration of the program and are cumulative.

Note: The following list of examples are not inclusive.

Examples of severe violations are as follows:

1. Any violation of the ARRT Standards of Ethics
 - The ARRT Standards of Ethics defines the following ethical violations:
 - Fraud or deceptive practices
 - Subversion
 - Unprofessional conduct

- Scope-of-practice violations
- Being unfit to practice
- Improper management of patient records
- Violation of state laws, federal laws, or regulatory rules
- Failure to report violations or errors

2. Violence or threat of violence to oneself or others

3. Violation of Forsyth Tech Student Code of Conduct Rule 6. Weapons and Dangerous Instrumentalities

4. Unsafe Practice

5. Deliberate damaging or mishandling of equipment in classroom, lab, or clinical setting

6. Use, purchase, distribution, or possession of alcohol and/or controlled substance prior to or during any function where you are identified as a Forsyth Tech student.

7. Theft of any item or receipt of stolen items from the hospital, employees of the hospital, fellow students, visitors, or employees of Forsyth Tech

8. Falsifying documentation including times, patients, records, or any other written or oral information

9. Defiant or non-cooperative behavior with faculty, clinical preceptors, and clinical staff. For example, refusing to follow instructions, refusing to do an examination, exhibiting behavior that obstructs the learning environment, and other behaviors as defined by the Clinical Coordinator or Program Coordinator.

10. Sleeping at the clinical site

11. Performing radiographs, or any use of ionizing radiation, without direct or indirect supervision.

12. Repeating radiographs without permission and direct supervision from a supervising technologist, clinical preceptor, or clinical staff

13. Use of the radiography lab to take radiographs of any kind without direct supervision of a Forsyth Tech employed registered Radiologic Technologist

14. Any violation of the Radiation Safety Plan

15. Any violation of OSHA or HIPAA regulations

16. Conviction of criminal or civil law

17. Engaging in behavior which may result in the clinical site requesting removal of the student from the clinical rotation

18. Any type of unprofessional behavior

19. Violation of Forsyth Tech's sexual harassment policy

20. Violations of civility (e.g., rude, disrespectful, lewd, indecent, or offensive conduct or apparel)

21. Mental, physical, psychological, cyber, or verbal abuse

22. Obtaining multiple violations of any Forsyth Tech and/or Radiography Program violation

Examples of less severe violations are as follows:

1. Habitual tardiness
2. Habitual absences
3. Lack of initiative or reported laziness
4. Violation of dress code policy
5. Poor personal hygiene
6. Chewing gum in clinical

7. Failure to make proper notifications of absence or tardy in a timely manner
8. Not properly completing and/or not submitting assignments/paperwork on time

5.22 DISCIPLINARY ACTION

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. Depending on the severity of the violation, a student could be dismissed on their first offense. Violations are cumulative for the duration of the program.

The following are the procedures of disciplinary action that may be taken as a result of violation of the professional standards and/or the Forsyth Tech Student Code of Conduct:

1. **Verbal Warning** – The Radiography 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. **Disciplinary Probation** – This action is intended to make clear to students the limits of acceptable behavior and to give students who violate the rules an opportunity to more fully understand the rules and incorporate the experience into his/her overall development. Assigned discipline may be in one of two categories depending on the level of severity of the offense. They include 1) general probation, and 2) dismissal.
 - **General Probation:** General Probation may be granted to give the student a chance to show his/her capability and willingness to observe the Professional Standards, Program Policies, and the Student Code of Conduct without further penalty. If the student violates again, will result in immediate dismissal.
 - **Dismissal:** Violation resulting in immediate dismissal from the Radiography Program.

If, as a result of a violation, a student is dismissed from the Radiography Program, the student will receive failing grade(s) for enrolled courses, and the disciplinary dismissal will be recorded in the student's permanent record. The student will not be eligible to re-apply to the Radiography Program.

5.23 STUDENT GRIEVANCE PROCEDURE

The Radiography 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 beginning with Level 1 unless the issue is a claim of discriminatory harassment. 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/Director'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 addressed through the Student Code of Conduct.
2. Acts of retaliation as a result of the grievance procedure.
3. Complaints of discrimination on the basis of 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 handled through the Student Conduct Committee.
- Grade appeal decisions will be handled through the academic appeals component of the Student Code of Conduct.

Grievance Levels

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

- Level 3: Department Chair of Imaging

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

5.24 STUDENT CONCERN PROCEDURE

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/Director
- 4: Department Chair 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 Radiography faculty prefer to address and handle any student concern with the individual student to ensure adequate resolution.*

SECTION 6: CLASSROOM POLICIES

6.0 ATTENDANCE

GENERAL AND LAB

Forsyth Tech regards class lectures, demonstrations, and other in-class experiences as vital to the educational process. For this reason, students are expected to attend and arrive on time to all class, lab, and clinical. **Students are responsible for accounting to instructors for an absence and should report to their instructors following any absence to determine what they may have missed.**

Any failure to notify the course Instructor (by college email and/or office phone voicemail) of an absence, prior to the start of the scheduled course time will result in **5 points** off the final grade in the course. This rule applies for each incident.

Students must satisfy the instructor that they should be permitted to remain in a course after incurring absences in excess of **five hours** of class and/or lab. Any absence over the five-hour limit will result in a **1-point** deduction, per hour off the final grade.

TARDINESS

Students are expected to report to class or lab on time. Attendance is recorded at the beginning of each class or lab session. Every **two** tardies will count as **1 hour** of absence.

6.1 ELECTRONIC DEVICES IN THE CLASSROOM

(See *Electronic Devices Policy, Radiography Program Policies*)

6.2 GENERAL CLASSROOM RULES

Each student is responsible for all course material covered during a class session in which he or she was absent. Students are encouraged to discuss any work missed with the instructor.

Textbooks should be brought to every class and/or lab.

Tests are handed back to the student after grading for the student to review. The test is then returned to the instructor. All tests are kept on file for the duration of the student's program and are considered property of the program.

Submit all materials and assignments in a neat and legible form, on time or before the due date. **One (1) letter grade** reduction will apply for each day of lateness.

There is a mandatory Course Entry Assignment for each course.

6.3 MISSED TESTS

Students must be present for announced tests or a "0" will be issued.

Exceptions may be made based on:

- Illness: Requires a doctor's note

- Emergency: Determined by the instructor to be valid

Students must contact the instructor by either college email or leave a message on the instructor's office voice mail prior to the scheduled test time.

Make up tests must be scheduled with the instructor and will be given on the first day the student returns to school. Make up tests will be scheduled at times other than classroom, lab, or clinical education times. If the student does not contact the instructor on the first day back at school, no make-up test will be given and a **Zero (0)** will be recorded.

6.4 RADIOGRAPHIC IMAGES/CD CHECKOUT POLICY

Students may be required to complete projects or case studies in regard to radiography. If copies of images are needed for presentations, it is the student's responsibility to obtain consent from the clinical site. All patient information must be removed from the images, or it will be considered a violation of professional standards (*Radiography Program Policies, Professional Standards*).

6.5 READING AND HOMEWORK ASSIGNMENTS

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

6.6 LIBRARY/RESEARCH FACILITIES

Library facilities include the main campus Forsyth Tech Library and the Carpenter Library of the Bowman Gray School of Medicine. A library card can be obtained upon entry into the curriculum through the Forsyth Tech Library.

An online catalog can be found through the Forsyth Tech library at:

<http://library.forsythtech.edu/jpac20/ipac.jsp?profile=#focus>

This link will contain resources for information on radiography and/or medical imaging sciences.

The following link is to the Radiography LibGuide:

<http://forsythtech.libguides.com/Radiography>

SECTION 7: LAB POLICIES

7.0 INTRODUCTION

The operating and safety procedures for the energized laboratory have been developed to establish a safe learning environment for students and faculty at Forsyth Technical Community College. Radiation safety and protection measures are in place to provide a safe environment. All students and faculty are required to follow the Radiation Safety Plan (RSP). They must review and be familiar with the plan, and sign acknowledgment of its content and their implied compliance. A notebook with a copy of the RSP can be located in the lab, BGH, room 112. (*Forsyth Technical Community College, Heath Tech Division- Imaging Department, Radiation Safety Plan*).

In addition, students will be taught and are required to practice all radiation safety measures, with emphasis on how to minimize radiation exposure to patients and personnel. This content will be introduced and taught in the various courses with lab components (RAD 110, 111, 112, 121, 122, 141, 211, and 231).

7.1 GENERAL RULES

- At no time are students allowed to hold patients or any type of image receptor during energized lab activities, including Open Lab.
- Students are responsible for maintaining the cleanliness and orderly appearance of the lab.
- Student conduct while in the lab is governed by the same standards as any other classroom situation.
- The energized lab equipment must be used under the direction of a Forsyth Tech Radiography Program faculty member or adjunct faculty.
- Radiation dosimeters are to be worn by students and faculty during energized lab sessions, including Open Lab.
- Any misuse of lab equipment or accessory devices will subject the student to disciplinary action.
- Any violation of the lab rules will be considered a violation of professional standards (*Violation of Professional Standards, Program Policies*).

7.2 ATTENDANCE OF SCHEDULED LAB SESSION

General and Lab

Forsyth Tech regards class lectures, demonstrations, and other in-class experiences as vital to the educational process. For this reason, students are expected to attend and arrive on time to all class, lab, and clinical. **Students are responsible for accounting to instructors for an absence and should report to their instructors following any absence to determine what they may have missed.**

Any failure to notify the course Instructor (by college email and/or office phone voicemail) of an absence, prior to the start of the scheduled course time will result in **5 points** off the final grade in the course. This rule applies for each incident.

Students must satisfy the instructor that they should be permitted to remain in a course after incurring absences in excess of **five hours** of class and/or lab. Any absence over the five-hour limit will result in a **1-point** deduction, per hour off the final grade.

Tardiness

Students are expected to report to class or lab on time. Attendance is recorded at the beginning of each class or lab session. Every **two** tardies will count as **1 hour** of absence.

7.3 ABSENCE OF SCHEDULED LAB SESSION

If a student cannot be present for their scheduled lab (for whatever reason), they should, when possible, exchange lab with another student. Any absence in lab for reasons other than sickness or emergencies requires the student to get preapproval from the lab instructor in order to switch labs. Individual make-up labs will not be held for those students who are absent from a scheduled lab. The student is responsible for any lab material or assignments missed due to their absence.

7.4 DARKROOM SAFETY AND PROCEDURES

Faculty and Students are expected to follow all darkroom safety measures and procedures.

BASIC PROCEDURES

- Unexposed x-ray film is stored in room 112 dark room until needed.
- Process films according to the laboratory instructions
- Always check expiration dates on the film and the chemicals used in the processor. Make note if either are beyond the expiration date.
- Two safe lights in the film processing/loading area are provided under these conditions and should not be changed without authorization from the Program Coordinator.
- Filter Type: Wratten 6B
- Bulb Wattage: 15
- Distance from Working Surface: 6 feet
- Both safelights can fog film if procedures are not followed

AUTOMATIC PROCESSING

- Check temperature at the beginning of the lab. Do not process films unless developer temperature is 92°. Recheck temperature as needed.
- Run cleanup or blank films daily as specified by the manufacturer.
- Maintain the processor according to the instructions in the manufacturer's operation manual in the Radiography Lab, Room 112

QUALITY ASSURANCE

- QA procedures will be performed at specified intervals by students as a supervised laboratory experience or by the Lab Instructors.

7.5 HANDLING OF LABORATORY EQUIPMENT AND ACCESSORY DEVICES

Proper use and maintenance of laboratory equipment and accessory devices (i.e., phantom, shields, image receptors, grids, and sponges) are essential to laboratory instruction, safety, and longevity. All items utilized during labs and practice should be handled with care and returned to their proper location after usage. (*Forsyth Tech Student Code of Conduct, Rule 3. Damage to or Destruction of Private Property and Violation of Professional Standards, Radiography Program Policies*).

7.6 HANDLING OF WHOLE-BODY PHANTOMS

The following information must be followed at all times:

- Two or more people are required when moving the phantoms.
- A sheet must be kept under the phantoms at all times.
- Do not remove the plastic protectors on the new phantom's hands.
- If separating the parts of the new phantom, do not fasten the screws too tight.
- Do not place phantoms in a position unintended by the manufacturer.
- Do not mark on the phantoms with pen or leave printed materials in contact with surfaces.

SECTION 8: CLINICAL EDUCATION POLICIES AND PROCEDURES

8.0 INTRODUCTION TO CLINICAL EDUCATION

Throughout the two years in the Radiography Program at Forsyth Tech, the student will participate in the clinical education portion of the curriculum in order to:

- Acquire competency and proficiency in a wide variety of diagnostic radiographic procedures through application of classroom theory and laboratory skills to the actual practice of technical skills in a clinical setting.
- Develop and practice professional work habits and appropriate interpersonal relationships with patients and other members of the health care team.

The main purpose of the clinical education courses in any Radiography Program is to develop a transfer of knowledge from theory learned in the classroom to the actual performance of skills in the clinical setting with the ultimate goal of the student obtaining a level of job-entry competency by the time of graduation.

This transfer of knowledge is accomplished by a series of clinical assignments in all aspects of diagnostic radiographic procedures along with the correlation of classroom and laboratory experiences.

In order to measure the student's ability to perform at satisfactory levels of competency, a method of competency evaluation has been established to meet the particular needs of this program. The student will be evaluated by clinical technologists and Forsyth Tech faculty in their performance of specific radiographic procedures as well as on their performance during the complete clinical rotation.

The student must realize the production of a finished radiograph and the clinical technologist observation of the student during the performance of that particular radiographic procedure are by no means the only aspects of clinical education that must be evaluated. In addition, the following affective skills play an important role in the overall performance of a student in clinical education courses: organization skills, initiative, cooperation, self-confidence, composure, enthusiasm, and overall attitude.

These characteristics are evaluated along with the completion of clinical objectives for the rotation. The Clinical Preceptor at each site will be responsible for compiling the results of the evaluations to present to the student at middle and end of the semester.

8.1 CLINICAL COURSE

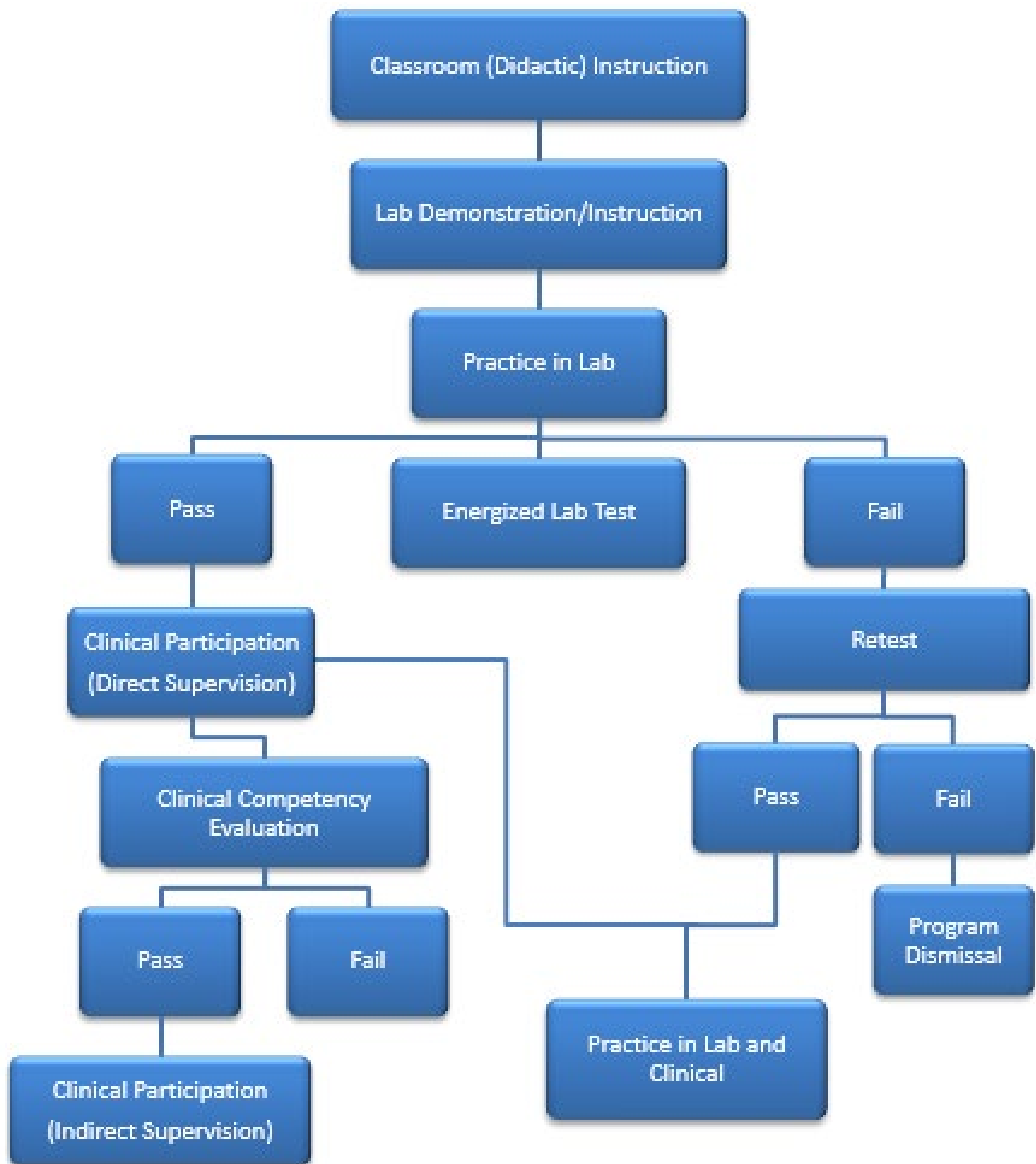
The student will engage in laboratory sessions during the Radiographic Procedures courses that will allow the student the opportunity to demonstrate correct radiographic procedures by the use of simulation on classmates and actual radiographs of phantoms (under the direct supervision of a college instructor). After demonstrating competency in the laboratory, the student will then be permitted to perform the radiographic examination for competency in the clinical setting. This does not mean that the student cannot assist the technologist in the performance of radiographic procedures not yet covered in the classroom or lab. In fact, the student will be expected to actively participate in every patient examination completed in their assigned area. The student should be aware of the following policies related to the Radiographic Procedures I (RAD 111), II (RAD 112), and III (RAD 211) courses:

- Successful completion of all didactic and simulation procedures section tests (chest, abdomen, finger-hand-wrist, etc.) of 78% or higher is required before the student can begin performing the procedure in the clinical setting.
- A flowchart, which shows the correlation of the procedure courses with the curriculum clinical competency evaluation, is provided on the following page (*Clinical Competency Evaluation Flow Chart*).

The student is reminded that the majority of time spent in the first phase of their clinical experience will consist of transitioning from an observational or passive role, to an active or participatory one, assisting the technologist in radiographic examinations. The student's rate of progress will depend on the ability they possess to understand and perform the various assigned tasks.

After gaining experience in the various procedures, the student will gradually move into a performance state in which he or she will actually be performing the procedures under the supervision of a radiographer. It is at this stage that the student will perform a **Clinical Competency Evaluation**. The student is reminded that the satisfactory performance of an examination for competency is only the beginning of gaining true proficiency. The student will also be responsible for maintaining their level of competency for each examination at each clinical affiliate. Details of the required numbers and types of competency and proficiency examinations will be found in the course syllabus for each of the Clinical Course.

8.2 CLINICAL COMPETENCY EVALUATION FLOW CHART



8.3 COMPETENCY PROCEDURE

Clinical competency evaluation is a standardized method for determining and documenting a student radiographer in a core of radiographic procedures, identified by the *American Registry of Radiologic Technologists (ARRT)*.

Radiography Clinical Competency Requirements

Demonstration of clinical competence means that the evaluator has observed the student performing the procedure, and that the student performed the procedure independently, consistently, and effectively. As part of the educational program, students must demonstrate competence in the clinical activities identified below:

- Ten (10) mandatory general patient care activities
- Thirty-seven (37) mandatory radiologic procedures
- Fifteen (15) elective imaging procedures selected from a list of procedures.
 - One of the 15 elective imaging procedures must be selected from the head section.
 - One of the 15 elective imaging procedures must be either upper GI or contrast enema plus one other elective from the fluoroscopy section.

Procedures should be performed on patients whenever possible. A maximum of eight mandatory procedures may be simulated if demonstration on patients is not feasible.

Demonstration of competency includes:

- Patient identity verification
- Examination order verification
- Patient assessment
- Room preparation
- Patient management
- Equipment operation
- Technique selection
- Patient positioning
- Radiation safety
- Image processing; and
- Image evaluation

Critical Thinking and Problem Solving

The Joint Review Committee on Education in Radiologic Technology (JRCERT) requires critical thinking and problem-solving skills in the curriculum of radiography programs to further enhance student's competence. Each task in the competency manual initiates critical thinking and problem solving as the student completes each step, evaluates their own images, and reviews the anatomy. After completing this manual, the student will have acquired the knowledge and gained confidence in the clinical setting and will be ready to take the ARRT certification examination.

Student Responsibilities:

Student MUST always work under the direct or indirect supervision of an ARRT Registered Technologist. The following process has been established to assure successful completion of the required clinical competencies.

- MUST “CALL” THE EXAMINATION FOR A COMPETENCY BEFORE THEY EVEN GET THE PATIENT!!
- Clinical Competency Manual must be given to the supervising technologist before beginning the examination
- Student must bring patient into the room
- Verify patient information
- Perform entire examination unassisted (independently) including setting technique without errors
- Student must properly identify all competency radiographs/images with their lead markers
- Let the patient go or return them to the appropriate area
- Clean the room

Always remember that the patient’s safety and comfort is the primary goal, as well as obtaining the highest possible standards in diagnostic imaging. Do not attempt any imaging procedure you do not feel comfortable performing.

Clinical Staff Technologist Responsibilities:

- **Observe** procedure (*Note: student is expected to perform all aspects of the examination entirely unassisted including setting technique*)
- Technologist can **intervene** at any time they deem necessary for whatever reason, but this will result in the student not being able to count the examination for a Competency
- Approve all images obtained
- Perform all paperwork/computer-work associated with the examination
- Complete Clinical Competency Manual - Competency Evaluation form and sign

Clinical Instructor/Preceptor Responsibilities:

- Review the competency by evaluating images with the student
- Ensure all required signatures are on the competency forms (*Note: The program will not grant competency, if the required signatures are not present*)
- To maintain consistency and competency in procedures, the Clinical Instructor/Preceptor has the ability to re-evaluate a student on previously demonstrated competency, at any time. Demonstrated competency may be removed:
 - Student is unable to perform competency examination
 - Validity of the competency examination (i.e., lack of lead markers, positioning, centering)

In order to be considered competent the student must perform the examination and receive an “Acceptable” on all portions of the competency. If a student receives an “Unacceptable” on any portion of the competency, it will be considered a failed attempt. The student will be required to repeat the examination.

There is no set limit to the number of times the student may repeat the examination for competency; however, remediation will be given for each failed attempt. Students are urged to be confident of their ability to perform a competency examination before they request to be evaluated, so that they are able to complete the task at an acceptable level the first time. The student is reminded that any student-caused errors or repeated radiographs demonstrate a lack of competency and will result in a failed attempt.

The student is responsible for notifying the Clinical Instructor/Preceptor when a successful competency has been performed. The Clinical Instructor/Preceptor will review, evaluate, and sign off the competency evaluation. If the

student is not successful in the evaluation part of the competency, this too will result in a failed competency. **The Clinical Instructor/Preceptor will be responsible for sending failed competency paperwork to the Clinical Coordinator.**

The student is responsible for completing the total required number of competencies (mandatory and elective) before the end of their last clinical rotation. Refer to the course syllabus for each clinical course. Failure to complete the minimum number of competencies by the end of the semester will result in the student receiving a **zero (0)** for the final clinical grade and student will be dismissed from the program.

After the student has successfully completed a competency evaluation, they will be expected to be able to perform the same examination at any time on other patients to ensure continued proficiency. These continued proficiency examinations will contribute to the student's overall clinical grade. The number and types of proficiency examinations required to achieve the clinical grade will be included in the syllabus for each clinical course. Refusal to perform a previously obtained competency examination when asked by a Clinical Instructor/Preceptor or Staff Technologist, will be considered insubordination, and considered a violation of professional standards. Additional disciplinary actions will include invalidation of the original competency evaluation and the student will be required to repeat the competency evaluation for the procedure to be counted as valid.

8.4 SUPERVISION POLICY

To ensure patient safety and the best possible care of patients, clinical supervision is required for all Forsyth Tech Radiography Program students. Students are required to work under **DIRECT SUPERVISION** until they have successfully demonstrated competency. After demonstrating competency of a specific examination, the student may perform the examination under **INDIRECT SUPERVISION**. A repeat of ANY unsatisfactory images requires that a certified technologist **DIRECTLY SUPERVISE** the student.

DIRECT SUPERVISION

Until a student achieves and documents competency in any given procedure, all clinical assignments shall be carried out under the direct supervision of qualified radiographers. A qualified radiographer is defined as being an individual certified by the American Registry of Radiologic Technologists, or a suitable equivalent. The parameters of direct supervision are as follows:

- A qualified radiographer reviews the procedure in relation to the student's achievement,
- A qualified radiographer evaluates the condition of the patient in relation to the student's knowledge,
- A qualified radiographer is physically present during the conduct of the procedure, and
- A qualified radiographer reviews and approves the procedure and/or image.

INDIRECT SUPERVISION

After demonstrating competency, students may perform procedures with indirect supervision. Indirect supervision is defined as that supervision provided by a qualified radiographer immediately available to assist the student regardless of the level of student achievement. This is further defined as the presence of a qualified radiographer adjacent to the room or location where a radiographic procedure is being performed.

This availability applies to all areas where ionizing radiation equipment is in use. This includes surgical and all mobile, including mobile fluoroscopy, procedures regardless of the level of competency.

QUALIFIED RADIOGRAPHER

A qualified radiologic technologist possessing American Registry of Radiologic Technologists (ARRT) certification or equivalent, and active registration in the pertinent discipline and practicing in the profession.

- **Clinical Staff Technologist**– Staff Radiographers certified by the American Registry of Radiologic Technologists and have volunteered to work with students
- **Clinical Instructor/Preceptor** – Radiographers certified by the American Registry of Radiologic Technologist, employed by the college and are recognized by the Joint Review Committee on Education in Radiologic Technology to have met the criteria for clinical instructor/preceptor

APPROVAL OF RADIOGRAPHS

It is the responsibility of the supervising technologist to approve all student radiographs, supervise a repeat examination, and dismiss a patient after completing an examination. The student may perform these duties ONLY after being instructed to do so by their supervising technologist.

8.5 REPEAT POLICY

In support of professional responsibility for the provision of quality patient care and radiation protection, unsatisfactory radiographs shall be repeated only under the direct supervision of a qualified radiographer, regardless of the student's level of competency.

Each student is responsible for abiding by the above supervision and repeat radiograph policies. In a situation where the student feels he or she is placed in a situation that is in direct violation of these policies, the student should report it to the Clinical Instructor/Preceptor.

A qualified radiologic technologist must be present during student performance of a repeat of any unsatisfactory radiograph. Direct supervision is mandatory.

Failure to comply with the supervision or repeat examinations policies is in violation of the Unsafe Practice Policy (*Radiography Program Policies: Unsafe Practice Policy*).

8.6 SAFE CLINICAL PRACTICE

There are many safe clinical practices, including, but not limited to the followings:

- Practicing within the guidelines of the Radiography Program policies and objectives at Forsyth Tech
- Practicing within the American Registry of Radiologic Technologist standards
- Practicing within the ethical standards of the American Society of Radiologic Technologists
- Practicing within the scope of practice under the auspices of the ARRT and ASRT
- Practicing within the standards of the Joint Review Committee on Education in Radiologic Technology
- Practicing within the direction and supervision of the Radiologist on site at clinical affiliates.
- Practicing within the direction and supervision of the registered Radiologic Technologist assigned as clinical preceptor or clinical staff.
- Using appropriate shielding, imaging technique or other means of radiation exposure reduction commonly named ALARA at all times.
- Giving excellent care to every patient without regard to race, creed, sex, color, religion, and physical or mental limitations.

- Students may not remove a patient from the following:
 - Cervical collars
 - Monitoring devices
 - Traction
 - Bandages or splints
- Students may not give medication or treatment to patients with the exception of contrast agents and only with direct supervision and approval of a technologist or physician. Food and/or liquids may be given with consent of the attending physician.
- Students may not inject IV contrast without direct supervision of an ARRT (R) technologist that works for the clinical site.
- Students are not permitted to use fluoroscopy to locate or position anatomy for any examination in any clinical setting.
- Critically ill patients should take priority and should never be left alone. Note any changes in patient and report it immediately.
- Students should never keep valuables for a patient. Valuables should be given to a family member or given to nursing personnel to be locked up. Note the name of the person in possession of valuables in case it is needed later.
- Dentures should be placed in the proper container, not wrapped in paper towels, tissues or washcloths. (Always check for dentures, glasses, clothing, and other personal belongings when escorting the patient from the exam room.)
- Never be afraid to ask for help. If you suspect something is wrong, it probably is, get help.
- Never be afraid to ask a radiologist to check a patient.
- Never get between an upset or belligerent patient and the exit.
- Excuse yourself from the room if you feel threatened or uneasy. Ask a technologist to come in the room with you.
- Students are required to wear corrective lenses or glasses if indicated on their medical form.
- Students are required to wear any and all types of devices required by their physician that the program may feel is necessary to protect the patient.
- Students are NOT allowed to hold image receptors during any exposure in clinical radiography. Students should not hold patients during any radiographic procedure when an immobilization method is the appropriate standard of care.

8.7 CLINICAL ATTENDANCE POLICY

Every instructional minute counts and student attendance interferes with the learning process. Be respectful to everyone's time and schedule by arriving early and always be prepared for clinical. Falsification of any record will result in a grade of F being given for the course and the student will be immediately dismissed from the program. Specific policies and procedures are as follows:

Tardy - (8:00 a.m. – 8:09 a.m.)

Arrival to clinical within the first nine (9) minutes after scheduled clinical start time.

- Each incident will be recorded as an occurrence. Any student exceeding **two (2)** recorded occurrences will result in **5 points** off their final grade in the course. This rule applies for each incident.

Absence - (8:10 a.m. – until)

Arrival to clinical ten (10) minutes after scheduled clinical start time.

- The student is responsible for notifying the Clinical Instructor/Preceptor and the Clinical Coordinator via email at least **fifteen (15)** minutes before the expected time for the clinical rotation to begin.
- If assigned to an outpatient facility, the student must also notify the clinical site. The phone call must include your name, reason for the absence, and expected date of return to clinical.

Early Departure

Departure from clinical before scheduled clinical end time.

- Strongly discouraged in early departure unless there is an emergency.
- In the event of an emergency, the student must notify Clinical Instructor/Preceptor and the Clinical Coordinator via email. If assigned to an outpatient facility, the student must also notify the clinical site prior to departure.
- In the event of a planned early departure, the student must submit an email request to the Clinical Coordinator for approval at least **24 hours** before scheduled clinical start time.

Failure to notify the Clinical Instructor/Preceptor, and Clinical Coordinator and the clinical site of impending absence or early departure will result in **five (5) points** off the final grade in the course. This rule applies for each incident. In addition, the student must notify the appropriate person by **9 a.m.** on the day they are absent from clinical or an **ADDITIONAL five (5) points** will be deducted for each day they do not call in. All clinical time missed will be rescheduled on designated “make-up” day(s) listed on the clinical rotation schedule. All make-up time will occur at the same clinical site and for the same shift on which the absence occurred. Designated make-up date, time and location are subject to change.

8.8 CLINICAL EDUCATION ROTATION ASSIGNMENTS

Rotation of students through different clinical settings provides for a well-rounded clinical education which allows the student to become exposed to a variety of clinical experiences. Students in the program are scheduled for clinical education rotations throughout the entire curriculum. All students rotate through each of the different clinical settings affiliated with Forsyth Tech to warrant equal and equitable experiences. Clinical education times vary depending on the semester; however, **at no time should a student be scheduled more than 40 hours per week** of combined clinical and didactic/classroom hours.

Students will receive a clinical rotation schedule outlining each phase of clinical education at the beginning of each semester. Clinical rotations are determined randomly and must be strictly adhered to. Requested assignments and changes will NOT be accepted. It is the student’s responsibility to know and report to the assigned clinical site. Students must have a reliable form of transportation that will enable them to travel to all of the clinical affiliates. The costs of travel, lodging, parking, meals, and other expenses are the student’s responsibility. The program does not provide transportation to clinical affiliates. Some **evening and weekend shift rotations** will be required during 3rd, 4th, and 5th semester. Evening and weekend rotations will total no more than 3 weeks in each semester. Evening and weekend rotations are completed by 10:00 p.m. No substitutions or changes for clinical rotations or assignment times are allowed without consulting the Clinical Coordinator. Forsyth Tech Radiography Program Administration reserves the right to make changes in clinical sites as deemed appropriate for quality clinical education.

Students must stay in assigned area unless otherwise designated by a Clinical Instructor/Preceptor or a Radiography Program faculty member. Students shall be productive and display active participation while exams are being performed in assigned area/room. Even if the exam is beyond the student's capabilities at that time, students must be attentive,

observant, and participate with patient care. Clinical time is to be used wisely as this is documented hours of instruction that are needed for admittance for ARRT registry exam. Failure by a student to participate in their own clinical experiences may result in a disciplinary action for uncooperative behavior while in the learning environment.

Additionally, students must adhere to the following guidelines:

- Meals Break – lunch/dinner schedules will be assigned at the discretion of the Clinical Instructor/Preceptor at each clinical affiliate. Due to the nature of the professional responsibilities of Radiography, it is often impossible to predict a schedule of meals and breaks in advance.
 - 6 hours or more a day clinic - one (1) required 30-minute meal break
 - Students are not allowed to work through lunch breaks
 - Lunch time cannot be accrued, accumulated, or banked
- Eating and drinking are allowed only in the staff lounge or designated areas. Students are not allowed to bring their breakfast foods to eat upon arrival of their clinical day.

8.9 CLINICAL CONDUCT

Students are required to abide by hospital policies, rules, and regulations regarding conduct. Remember that you must conduct yourself in a professional manner in the clinical site when coming in contact with patients, physicians, clinical staff, clinical preceptor, and fellow students. No display of disruptive or inappropriate behavior by students is tolerated during clinical rotations. In order to ensure that the student does not pose a direct threat to the health and safety of themselves and others, a zero-tolerance policy is enforced regarding inappropriate behavior. Any student whose physical/psychological/emotional condition or acuity level would be inconsistent with safe clinical practice is to be dismissed immediately by their Clinical Instructor/Preceptor. The Clinical Instructor/Preceptor should immediately inform the Clinical Coordinator of their action. A student who is dismissed from clinical due to inappropriate behavior will meet the Clinical Coordinator to discuss the suitable action. The student is not allowed back in clinic prior to this conference.

8.10 CLINICAL APPEARANCE AND DRESS CODE

Students are to abide by the program requirements related to personal appearance, in order to present a positive, well groomed, and professional appearance; to be easily identified by patients and co-workers; and to maintain safety related to attire for themselves and patients.

The Program expects each student to present a professional, businesslike image to our patients and to the public while participating in clinical education. All students are expected to meet the requirements for safety in the conditions they practice under and to apply common sense and good taste regarding personal appearance. Students are also expected to follow entity guidelines regarding uniforms and other specifics of personal appearance and grooming.

GENERAL APPEARANCE

- Clinical scrubs must be pressed and clean, properly fitted, and appropriate.
- Only solid black or white long sleeve tops can be worn underneath scrub top.
- Tattoos should not be visible in the clinical setting. All **tattoos** must be covered. This includes any facial tattoos.
- Wearing of tight-fitting, suggestive, or see-through attire is prohibited.
- Chewing gum is not allowed.

FOOTWEAR

- Clean, comfortable, and closed-toe shoes that are ALL white are required. Shoelaces should match accordingly.
- ONLY white hosiery or socks must be worn by students who provide patient care.

GROOMING

- Good personal hygiene is an essential element of appearance. Students are expected to be clean and to practice good hygiene habits.
- Nails must be clean, well groomed, and of appropriate length (**CANNOT** extend past the skin line).
- Artificial nails and nail jewelry are prohibited based upon health and safety guidelines related to patient contact and infection control.
- No nail polishes, acrylic, gel, or SNS nails are permitted.

HAIR

- Hair must be clean, combed, neatly trimmed, or arranged away from the face.
- Hair (passed the shoulders) must be pulled back in a manner that does not hang/dangle/fall on a patient while performing an exam.
- Colored hair must appear professional and in good taste (no exotic hair colors).
- Hair beads are not permitted.
- When required, students shall adhere to departmental guidelines regarding hair covering.
- Students arriving to clinical with wet hair will be asked to leave. Time missed must be made up.
- Sideburns, mustaches, and beards must be neatly trimmed to a short length.

ACCESSORIES

- Jewelry may be worn in moderation.
- One set of small stud earrings worn in earlobes only, a wristwatch (no smart watches), and one ring on either hand.
- All other jewelry is considered excessive for the clinical setting and therefore prohibited (i.e., large dangling/hoop earrings, any ear jewelry besides small studs).
- Jewelry on other parts of the face is prohibited.
- Piercings - no visible body piercings are allowed (facial or tongue).

COSMETICS

- Cosmetics must be used in good taste and moderation.
- Heavy makeup and eye shadow are not acceptable.

FRAGRANCES

- Strong smelling colognes and perfumes are prohibited.

- Colognes, perfumes, and any other scents (aftershave, scented lotions, body sprays, hair sprays, etc.) should be used sparingly, if at all. Please note that colognes, perfumes, and other scents may be especially offensive to sick patients.
- **An effective antiperspirant/deodorant is a MUST.**

8.11 CLINICAL EXAMS

Clinical exams are written exams given by the Clinical Coordinator during each semester. These exams can include any previously covered course content from didactic, lab, and/or clinical courses.

Course	Mid-Term Exam	End of Term Exam
RAD 151	√	√
RAD 161	√	√
RAD 171	√	Simulated Competency Exam
RAD 251	√	√
RAD 261	√	Final Exit Competency Exam

RAD 171 Clinical Education III - Simulated Competency Exam

- Student will be evaluated on the followings:
 - Simulated Projections from procedures listed below (Selected) – 20%

Projection	Number of Exam	Time
Chest, abdomen, bony thorax, upper & lower extremities, spine, skull, and facial bones	5 Projections	30 Minutes

RAD 261 Clinical Education V - Final Exit Competency Exam

- Student will be evaluated on the followings:
 - Simulated Projections from overall procedures (Selected) – 20%
 - Digital Images on Pixie – 10%

Projection	Number of Exam	Overall Time
Simulation - procedures from RAD 111, RAD 112 and RAD 211	6 Projections	45 Minutes
Digital Images (See course syllabus for procedure list)	4 Projections	

Competency Exam Grading Criteria:

- Grading will follow the same guidelines as Energized Lab Testing
 - Simulation – Communication, positioning skills, equipment manipulation and radiation protection
 - Digital - Patient & Positioning Skills, Equipment/Computer Manipulation, Radiation Protection and Digital Analysis

- Critical requirement to pass the clinical course
- One (1) retest is allowed to pass the competency exam with a grade of 78 or higher
- Remediation will be provided upon failure and prior to retesting
- The initial exam score will be the grade recorded

Failure to pass the Competency Exam will result in a grade of an F being issued for the course

A student receiving a grade of F is immediately withdrawn from all Radiography courses and dismissed from the program. A student withdrawn due to academic reasons is eligible to re-enter only once in the same health program (*Radiography Program Curriculum, Program Re-Admission Policy*).

For additional information regarding Competency Exam testing, see (*Radiography Program Policies, Program Curriculum Critical Requirements*)

8.12 CLINICAL PERFORMANCE EVALUATIONS

Clinical Performance Evaluations are based upon specified levels of technical and professional competency and provide an opportunity for guidance and assistance when student improvement is necessary.

During the course of the radiography program, the student will be expected to show progression and development in the required technical and affective skills. The student's performance evaluations will be used to help identify potential problem areas for the student. The counseling received by the student will be progressive when low evaluation scores are received.

Any student who feels they have received an unfair evaluation from a technologist or Clinical Instructor/Preceptor is encouraged to discuss their concerns with the Clinical Coordinator. If the problem is not resolved, the student should then proceed to the Program Coordinator and move on up to the appropriate chain of command.

Clinical Education courses are evaluated using the variety of methods listed below. All students are responsible for completing all requirements and competencies as outlined in the clinical course syllabus. Students should check each course syllabus for evaluation methods, evaluation forms and the number of evaluations, used for a specific course.

- **Course Entry Assignment** - Students must complete course entry assignment by the due date listed on Blackboard.
- **Weekly Report** - Students will be evaluated on a weekly basis to assess progression in the program. The Clinical Instructor/Preceptor will meet and discuss observation of student clinical skills, behavior, and offer recommendations.
- **Spot Checks** - Beginning 2nd semester, students will be given a spot check to ensure continued proficiency. These continued proficiency spot checks will contribute to the student's overall clinical grade. Spot checks will be conducted on examination that the student has successfully comped on. If a student does not perform satisfactorily (78 or higher), the previously acquired competency will be removed and the student must prove competency on the failed exam with another competency evaluation. The grade stands for the semester. One successful spot check is required for RAD 161, 171, 251, and 261.

- **Clinical Participation** - Students must record participation of all radiographic examinations. The number of procedures will be identified at the beginning of each semester in the clinical course syllabus.
- **Clinical Competencies** - Students must perform radiographic examinations on patients. Radiographic examinations that can be used for competency testing will be identified at the beginning of each semester in the clinical course syllabus. The number of competencies is indicated in the course syllabus. No duplication of radiographic examinations for clinical competency are allowed.
- **Clinical Performance Evaluation** – Clinical Instructor/Preceptor’s evaluation based on observations of student’s clinical performance during clinical rotations.
- **Clinical Adaption Journal** – Written assignment of situation(s) the student had encountered during clinical rotations that required critical thinking and adaption to accommodate a patient’s condition, age, size, trauma, pathology, and location (mobile, surgical, isolation).
- **Exams** -
 - Midterm/End of Term Exam – Written clinical exam comprised of materials from all radiography courses.
 - Equipment Test - Students will be asked to identify and demonstrate specific radiographic equipment operations and technique selections.
 - Conversion Test - Students will be asked to identify and demonstrate specific radiographic equipment operations and technique selections. Students will also be asked to solve Radiographic formula equations and utilize critical thinking and problem-solving skills.

In addition, students are required to complete:

- **Clinical Objectives** - must be signed at the end of each rotation by a staff technologist. The Clinical Instructor/Preceptor will then sign to verify completion/incompleteness of all the objectives for a given rotation.
 - Accurately record all required information
 - Submit all clinical objective forms and competency records on dates designated in each clinical course
 - Failure to maintain the above information will result in:
 - ~ A reduction of the student’s Clinical Performance Evaluation grade
 - ~ Incomplete recorded for clinical grade; thus, the student will not be allowed to enter the next semester until the course work is submitted.
- **Staff Evaluation of Student Clinical Performance** – a measurement tool for student’s clinical performance during clinical rotation. Form is to be completed by Clinical Staff Technologist or Clinical Instructor/Preceptor that assisted student during the clinical rotation.
- **Clinical Paperwork**
 - Students must complete all clinical paperwork (objective check sheets, procedures log, timecard,

- competency book, repeat examination log, etc.)
- Students must ensure all clinical paperwork submitted is fully completed.
- Any incomplete or late submission of clinical paperwork will result in **five (5) points** deducted from the final grade in the course. This rule applies for each failure.

Note: During the evaluation process, students should make faculty aware of any issues or concerns to their clinical education experience.

8.13 ELECTRONIC DEVICES IN CLINICAL

All electronic devices including mobile phones are PROHIBITED in the clinical setting. Mobile phone usage is considered hazardous in many areas of the clinical/hospital setting. Additionally, the use of mobile phones and accessories may violate HIPAA regulations.

Students must adhere to the Electronic Devices Policy (*Radiography Program Policies*). In addition, students may keep mobile phones and smart watches in their backpacks or lockers. The phones and smart watches may be used ONLY during meal break. Students who need to be available by phone for their children and/or family members may provide the telephone number of the Clinical Instructor/Preceptor to the family member(s). Family may contact the Clinical Instructor/Preceptor in the event of an emergency situation.

Failure to adhere to the policy will be considered as a violation and will result in a disciplinary action for displaying disruptive behavior while in the learning environment.

8.14 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, other infectious material via needle stick or splash or radiation 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/designated person immediately.
- The clinical instructor/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 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 Winterhaven 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 Ms. Jan Crews in Facilities/Human Resources.
- All medical bills must be submitted to Ms. Jan Crews in Facilities/Human Resources.

Per the Radiography Program

Any accident or incident that occurs while a student is participating in a Clinical Education assignment, which results in patient, hospital personnel, or student injury, and/or damage to equipment, the student must cooperate with and abide by the regulations of the Clinical Affiliate and the College in dealing with any type of accident/incident.

8.15 COMMUNICABLE DISEASE GUIDELINES FOR HEALTH TECHNOLOGY PROGRAMS

Clinical learning experiences may require that students be assigned to provide care for patients with communicable and infectious diseases. Students in health programs will be educated in the care of patients with communicable and infectious disease processes. They will learn how to protect themselves, other health care providers, patients, and their families from the transmission of the disease.

To protect the health and safety of its students, as well as that of patients, the programs within Health Technologies at Forsyth Tech require:

- Initial physician screenings and pre-exposure immunizations against specified infectious/communicable diseases (student medical form).
- Compliance with the infectious/communicable disease policy and protocols of the agency or facility to which they are assigned for clinical practice as well as the guidelines specified by the Centers for Disease Control and Prevention.
- Compliance with the use of universal precautions in all patient care situations.
- Any exposure incidence such as an accidental needle stick must follow the clinical agency's protocol and the Health Technologies Student Accident and Exposure Guidelines.
- Students who are exposed to a reportable communicable/infectious disease are required to inform their Clinical Preceptor or Clinical Coordinator within 24 hours of exposure.
- A student with a communicable/infectious disease pursuing academic study that requires clinical experiences should be aware that the school cannot guarantee placement at affiliate clinical sites for clinical rotations. Students participating in clinical rotations are subject to the requirements and approval of clinical sites.

8.16 STUDENT HEALTH AND SAFETY PROGRAM

Procedures Prior to Admission

- Tetanus Toxoid
- Polio vaccine (full series)
- Physical examination (3 months prior to enrollment)
- Urinalysis
- Rubella Titer or proof of current booster within last 10 years – if non-immune reaction – student immunized
- Rubeola Titer (if date of birth is after 1957 or proof of current booster within last 10 years) – if non-immune reaction – student immunized
- Varicella Zoster, IGG (if negative history or vague about having chicken pox) x 2
- Chest x-ray – if clinically indicated or history of positive TST (tuberculin skin test)
- Hepatitis B vaccine (required) – in process prior to first day of enrollment and titer
- Flu shot during designated time period

Procedures Prior to Enrollment

- Tuberculum Skin Test – a two-step test as per policy

Procedures in Second Year

- Tuberculin Skin Test – annual
- Flu shot during designated time period Required Education Programs

Sponsoring Institution Clinical

- Hazardous Materials Control Program
- Substance Abuse Information Program
- Campus Security Program
- Fire Safety Program
- Non-Harassment Program
- Occupational Exposure
- Emergency Preparedness
- Communicable Disease Policy

Education Settings

- Hazards (chemical, electrical, fire)
- Emergency Preparedness
- Medical Emergencies
- HIPAA
- Standard Precautions

**SECTION 9: HEALTH TECHNOLOGIES - IMAGING DIVISION
RADIATION SAFETY PLAN**

9.0 INTRODUCTION

This Radiation Safety Plan (RSP) has been developed in accordance with the requirements of the North Carolina Department of Health and Human Services, Division of Health Service Regulation, and Radiation Protection Section.

This Radiation Safety Plan applies to the Imaging Division at Forsyth Technical Community College (faculty and students) and the energized laboratories located in Bob Greene Hall. Radiography, Radiation Therapy, and Interventional Cardiac and Vascular Technology programs use energized labs to produce ionizing radiation on phantom (non-living) objects for teaching purposes only.

9.1 RADIATION SAFETY OFFICER (RSO)

The current Radiation Safety Officer at Forsyth Technical Community College is LeAnn Scruggs, BS, RT(R)(BD)(CI), RCIS.

- The RSO is responsible for:
 - the Radiation Safety Plan
 - providing advice on radiation safety matters and the implementation of radiation safety monitoring programs & policies
 - correspondence and compliance with the NCDHHS Radiation Protection policies
- Each individual imaging program is responsible for:
 - the orientation of all new faculty & students in radiation safety in compliance with the Forsyth Technical Community College Imaging Division Radiation Safety Plan and their individual accrediting body.

GENERAL INFORMATION

Forsyth Technical Community College must ensure, as far as reasonably acceptable, a radiation safety practice that ensures all persons while in the laboratory and clinical are safe from injury and radiation risks.

Where faculty and students are required to undertake activities, which involve the use of ionizing radiation for teaching or instructional purposes, Forsyth Technical Community College must ensure that authorized persons strictly adhere to the Radiation Safety Plan while in the energized lab and clinical setting.

In order to achieve this goal Forsyth Technical Community College has developed procedures outlined in this Radiation Safety Plan, which, if implemented appropriately, should ensure the risks associated with radiation exposure are minimal.

All forms and guidelines for the Radiation Safety Plan are contained within this document and housed in each energized lab, as well as the Radiation Safety Officer's office.

9.2 RADIOGRAPHIC UNIT REGISTRATION

The Forsyth Technical Community College radiographic equipment is registered with the North Carolina Department of Health and Human Services (NCDHHS), Division of Health Service Regulation, and Radiation Protection Section. All documents pertaining to the radiographic equipment are filed as listed below.

Documents filed within the Radiation Safety Plan include:

- Current Notice of Registration
- NC Regulation Book
- Notice to Employees (also posted in laboratory)
- Written Safety Procedures
- Review of Written Safety Procedures (reviewed annually by Radiation Safety Officer, faculty, and students)

Documents filed within the appropriate Program Coordinator's Office include:

- Equipment Registration Application
- Plan Review Letter of Acknowledgement
- Post Installation Survey
- Room shielding design
- FDA 2579 form

The energized equipment in this facility was installed following the manufacturer's specifications. Do not alter, tamper with, or remove any of the filters or collimators, or in any way cause needless radiation exposure.

9.3 ANNUAL REVIEW

The Radiation Safety Officer will review the Radiation Safety Procedures annually. This review will take place each year with additions/deletions/changes made to the plan prior to the start of the Fall Semester. Upon review the Radiation Safety Officer will share all Radiation Safety Procedures with each programs' faculty and faculty will share with enrolled students. All participants in the review will sign an acknowledgement form that they have read and understand all Radiation Safety policies. The acknowledgement form will be filed in the Radiation Safety Plan notebook.

9.4 FACULTY TRAINING POLICY

All faculty teaching in an Imaging Program at Forsyth Technical Community College are required to be currently registered within their field and in good standing with their governing body.

Faculty credentials are kept in the appropriate Program Coordinator's office for review.

All faculty teaching and students enrolled in an Imaging Program with an energized lab at Forsyth Technical Community College will complete an orientation prior to using the energized laboratory. This orientation will be provided by each individual program. The orientation will consist of:

- An introduction to the energized laboratory.
- Review of the Radiation Safety Plan.
- Completion of acknowledgement form documenting completion of orientation.

All acknowledgement forms will be filed in the Radiation Safety Plan notebook.

9.5 TECHNIQUE CHARTS

All students are encouraged to reference technique charts prior to making radiographic exposures in all clinical and laboratory exercises. Where applicable technique charts have been developed by program faculty and are available in each energized lab.

9.6 RADIATION SAFETY

Forsyth Technical Community College provides personal dosimeters for radiation monitoring of students and faculty to document compliance with ALARA (As Low As Reasonably Achievable) principles. Faculty and Students will wear a radiation monitoring device (RMD) provided at all times during clinical and laboratory assignments.

Dosimeter readings will be evaluated against the following guidelines:

Radiation exposures will be grouped into one of four categories as follows:

1. Below ALARA limits

- Exposures below ALARA limits require no action to be taken.

II. Above Level 1 ALARA limits

- Exposures above Level 1 ALARA limits will receive a notice from their Clinical Education Coordinator with a copy sent to the Radiation Safety Officer indicating that they have received a radiation exposure higher than expected, however, no follow-up or response is required. The Level 1 ALARA limits are as follows:

Monthly Bi-Monthly

Whole Body Exposure	150-300 mrem	300-600 mrem
Extremity Exposure	500-1000 mrem	1000-2000 mrem

III. Above Level 2 ALARA limits

- Exposures above Level 2 ALARA limits will receive a notice and Radiation Dosimeter Report from the Clinical Education Coordinator with a copy sent to the Radiation Safety Officer that they have received a radiation exposure higher than expected. The Radiation Dosimeter Report must be completed and returned so that the possible cause of the higher exposure may be investigated, and corrective action taken. The Level 2 ALARA limits are as follows:

Monthly Bi-Monthly

Whole Body Exposure	300-416 mrem	600-832 mrem
Extremity Exposure	1000-4166 mrem	2000-8332 mrem

IV. Above regulatory limits

- Exposures above the current regulatory limits will be subject to all applicable regulations governing occupational radiation exposure. A written report will be made by the Radiation Safety Officer to the NC Radiation Protection Section with thirty (30) days of the exposure notification and will include the individuals name, social security number, date of birth and all radiation dose information.
 - Radiation dose limits for minors will be 10% of the limits stated above.
 - Students may not hold patients during radiographic exposures in the clinical setting.
 - Faculty and students must adhere to all Radiation Safety Plans, Policies, and Procedures in practice at all clinical facilities.
 - Any questions regarding these limits or the current ALARA program at Forsyth Technical Community College should be directed to the Radiation Safety Officer.

9.7 RADIATION MONITORING DEVICE (RMD)

Faculty Members/ students are required to wear a radiation monitoring device (RMD) at all times during clinical or energized laboratory assignments. An RMD will be worn at or near the neck on the side of the body closest to the radiation source. When lead aprons are worn, the dosimeter will be worn outside the apron.

For the declared pregnant student, the second (fetal) dosimeter is worn at the waist level at all times. If a lead apron is in use, the badge should be placed inside the apron at waist level.

9.8 RMD POLICIES & PROCEDURES

- Each faculty member/student will be provided with a RMD upon employment/program entry and prior to any clinical assignment or energized lab. Dosimeters normally will be issued every two (2) months.
 - Each faculty member/ student is responsible for changing his/her RMD on or before the assigned date.
 - Failure to return RMD by due date will result in a penalty. See each individual imaging program's dosimeter return policy.
 - Radiation exposure reports will be shared with students within thirty (30) days of receipt of the dosimetry report from the vendor. Each student should check and initial his/her radiation exposure report bi-monthly.
 - Any individual can obtain a copy of his/her exposure record by submitting a written request to the Radiation Safety Officer.

- No experience in a radiation area (clinical or energized lab) will be allowed for a faculty member/ student until a replacement badge is assigned. This spare/temporary dosimeter will be worn until the new badge is obtained for the next wearing period. See each individual imaging program's attendance policy for any assigned clinical or laboratory time missed.
- Any student losing his/her RMD:
 - Must inform the Clinical Education Coordinator immediately.
 - May not attend clinical or energized laboratory assignments.
 - Will obtain temporary dosimeter from the Clinical Education Coordinator
 - Follow their program's attendance policy for any assigned clinical or laboratory time missed.
- Any faculty losing his/her RMD:
 - Must inform the Clinical Education Coordinator immediately.
 - May not attend clinical or energized laboratory assignments.
 - Will obtain temporary dosimeter from the Clinical Education Coordinator
- Each faculty member and student should only wear the badge assigned to them.
- Fluoroscopy has been identified as generating a high level of radiation exposure, thus demanding particular attention to properly wearing RMDs. Forsyth Technical Community College faculty and students, who are regularly exposed to fluoroscopy should wear a minimum of one radiation monitor placed on the collar of the surgical gown at neck level outside the thyroid shield and above the lead apron.
- Faculty/ Students may only wear their Forsyth Technical Community College RMD during Forsyth Technical Community College clinical hours/ energized lab activities. The student may not wear their RMD during any other work hours with exposure to radiation and/or during for any dental or medical x-ray procedures performed on them.
- Students enrolled in an Imaging Program at Forsyth Technical Community College who have had prior exposure to ionizing radiation & have been issued an RMD by another institution will be required to submit a written request for their radiation exposure records to their prior institution. These records will be kept on file by the Radiation Safety Officer.
- Each program will maintain their radiation exposure records according to national/state and/or accrediting agency of the program in which the student is enrolled.
- The RMD must not be washed or stored in a high radiation area (e.g., car, TV, microwave, clinical education center, etc.) which will affect readings.
- When not in use, the badges should be carried with the student and not left in clinical or laboratory. The control badge shall be stored in designated area for each energized laboratory.
- If excessive exposure or a radiation incident is suspected, immediately notify the appropriate Clinical Education Coordinator and the Radiation Safety Officer. A "Radiation Safety Dosimeter Report" must be completed.
- Failure to follow these monitoring procedures may result in an inaccurate radiation reading, a deduction of clinical grade, and possible reprimand (see each individual program's RMD 7 polices). Deliberate exposure of the RMD not in compliance with normal occupational exposure is unlawful and may result in dismissal from the program.

9.9 PREGNANCY

The radiation dose received by the embryo or fetus of a pregnant faculty member/ student will be limited to internationally accepted limits (50 mrem per month, 500 mrem total). Imaging Programs and Forsyth Technical Community College will not be held liable for meeting the dose limit until the faculty member/ student has declared her pregnancy by submitting a completed Pregnancy Declaration Form to the appropriate Program Coordinator of the pregnant condition, including a statement from her physician verifying pregnancy, conception date, and expected due date. The faculty member/ student shall assume any potential risk of radiation exposure before the pregnancy has been declared. Declaration of pregnancy is voluntary on the faculty member's/ student's part. A faculty member/ student after informing the program of pregnancy may, at any time, rescind (change) the declaration of pregnancy by notifying the Program Coordinator in writing.

Upon receiving a completed Pregnancy Declaration Form, the Program Coordinator shall ascertain the faculty member's/ student's exposure for the previous months and will advise the student whether any additional protective measures need be implemented to keep the fetal exposure below 500 millirem.

The student may choose from the following options:

1. Continue in clinical education without modification of the program.
2. Continue in the program with modification

- a. Continue with clinical and didactic courses with modification of clinical rotations (i.e.: fluoroscopy, portables and surgery).
 - all objectives and competencies will need to be completed prior to graduation
 - Strict adherence to all safety precautions
 - Submit monthly statements from physician about any changes in pregnancy and the advisability of continuing full time.
 - Wear RMDs, one on the collar and one on the abdomen for fetal monitoring. The second dosimeter shall be worn at waist level beneath any leaded protective apron and, in no circumstance, is this dosimeter to be exchanged with the student's primary dosimeter worn outside the apron at collar level. The student radiation exposure will be monitored closely by Radiation Safety Officer.
 - b. If student maintains full time status, the following are mandatory program requirements:
 - The Program Coordinator shall issue a second RMD to be used to monitor the fetal exposure at no cost to the student. This second RMD is to be used for fetal monitoring during the duration of the pregnancy.
 - Counsel the student related to proper radiation protection or refer the student to a radiation physicist for any questions related to the radiation safety of the developing fetus.
3. Withdraw from program with readmission based on college readmission policy.

The Program Coordinator & Clinical Education Coordinator will conference the faculty member/ student regarding radiation safety of the fetus. The faculty member/ student will be given a copy of the North Carolina Regulations for Protection Against Radiation section pertaining to “Dose Equivalent to an Embryo/Fetus” to review.

Forsyth Technical Community College is required to ensure that the pregnant faculty member/ student does not exceed the dose limit of 500 millirem during the term of the pregnancy. Therefore, if the pregnant student reaches the dose limit, then the faculty member/ student may not remain in clinical or energized lab assignments.

The Clinical Education Coordinator will review the fetal badge exposure report monthly with the faculty member/ student and review the faculty member’s/ student’s badge bi-monthly.

9.10 RADIATION PROTECTION SEMINAR

Each student enrolled in the Nuclear Medicine Program, Radiography Program, and Radiation Therapy Program must sign the attendance roster before admittance to a clinical facility or an energized lab. The appropriate Imaging Program will keep the roster on file. This is a lecture designed to give the student basic knowledge in medical uses of radiation protection.

9.11 ENERGIZED LABORATORIES

OPERATING AND SAFETY PROCEDURES:

These instructions are provided to comply with the state rules for radiation safety. The North Carolina Division of Health Service Regulation enforces the radiation rules in North Carolina. These rules require that the energized lab equipment meet specific requirements, that specific procedures be followed and that certain records be kept. A copy of these rules titled the North Carolina Regulations for Protection Against Radiation are available for review in the Radiation Safety Officer’s Office and in each energized lab.

GENERAL RULES:

- The energized lab equipment must be used under the direction supervision of a Forsyth Technical Community College faculty/adjunct faculty. Open lab requires indirect supervision from adjunct faculty.
- The main generator switches to the energized units are locked at all times when the energized unit is not in use. Only the appropriate faculty has a key to assess the main generator switch.
- The main door to the energized laboratory must remain closed at all times during exposures.
- Exposures on radiographic phantoms will be made in the Forsyth Technical Community College energized labs. No exposures to living cells will be allowed in the energized lab. Since no exposures are made on living cells there is no policy regarding the ordering of examinations. All exposures are made during a simulated experience.

- Restrict the x-ray beam to the area of laboratory interest. The beam size must not be larger than the image receptor, unless it is part of a controlled educational experiment to demonstrate improper beam restriction and its effects. Methods used to restrict the beam will be described in the lab.
- If any defect is found in protective equipment, notify the Radiation Safety Officer.

9.12 ENERGIZED LABORATORIES WITHOUT FLUORO CAPABILITIES

GENERAL RULES:

- Faculty and students must remain outside the energized lab with the energized lab door closed at all times during radiographic exposures. Faculty and students will not remain in the radiographic room while exposures are made. No one is permitted to not hold phantoms during radiation exposures. Individuals must use positioning devices (ex. tape, sandbags, traction equipment, and mechanical positioning devices) to keep the phantom in the desired position during radiation exposure.
- Students will consult the radiographic technique charts when making exposures in the energized laboratory.
- Align the x-ray beam with the image receptor by using the light localizer and the centering device.

9.13 ENERGIZED LABORATORIES WITH FLUORO CAPABILITIES

GENERAL RULES:

- Forsyth Technical Community College faculty and students should practice the triad of the fundamental principles of radiation protection: time, distance, shielding. All other standards of radiation safety are based upon these three principles.
- The amount of radiation received is controlled by time of exposure. Forsyth Technical Community College Faculty and students should practice safety standards for limiting the time of exposure to radiation.
- Forsyth Technical Community College Faculty and students should be familiar with the Inverse Square Law related to radiation safety that states the exposure rate from a point source of radiation is inversely proportional to the square of the distance from the source.
- The following principle applies: the distance from a point source of radiation is doubled, the exposure is quartered (ex. A student standing four meters from an X-ray source will be exposed to 1/4 as much radiation as a Forsyth Technical Community College Faculty member standing two meters from the source). Therefore, the Forsyth Technical Community College faculty and student should control the amount of radiation received by controlling the distance from the source of radiation.
- It is recommended all Forsyth Technical Community College faculty and students stand as far away as possible from the source of the radiation.
- The amount of radiation is reduced upon passage through materials.
- Lead shield devices are efficient shields for protection against X-ray radiation. All Forsyth Technical Community College faculty and students should wear the appropriate device or stand behind a barrier or exit the energized laboratory.
- The direct beam of radiation equipment should be avoided, as well as limit the time Forsyth Technical Community College Faculty and students are near the source of the beam.

An important component of the radiation dose to surgery personnel is scattered radiation, in particular from fluoroscopy, which requires an elevated awareness of the safety precautions to be practiced.

- The fluoroscope should be used at its lowest settings possible that provide a satisfactory image for lab simulations.
- Scattered radiation depends on the direction of the C-arm fluoroscopy beam. A minimally angulated tube that is positioned under the table will minimize radiation exposure to Forsyth Technical Community College Faculty and students, in particular if the beam is vertical.
- Ceiling mounted shields are an option to decrease scattered radiation as long as they do not interfere with multidirectional fluoroscopy; the proper use of shields reduces the exposure by a factor of three.
- To further reduce exposure to scatter radiation, surgical personnel should stand on the image intensifier or receptor side of the fluoroscopy machine.
- When using fluoroscopy, the phantom should be positioned as close as possible to the image intensifier side of the fluoroscopic equipment, and as far away as possible from the tube side, to reduce scatter radiation.

Students not following the policies outlined for use of the energized lab at Forsyth Technical Community College will be conferenced receiving the appropriate reprimand according to their Imaging Program's policies.

9.14 QUALITY ASSURANCE ACTIVITIES

Each individual program is responsible for their energized laboratory's quality assurance activities.

9.15 SIGNAGE

"Caution Radiation Area" signs with the universal radiation symbol are displayed on the outside of the main exterior entrance all energized labs, on the outside of the energized lab door, and/or in the adjoining rooms with an entrance into the energized lab area.

9.16 SHIELDING DEVICES

With the exception of Interventional Cardiac and Vascular Laboratory, lead aprons are used for instructional purposes only. Students are not allowed to remain in the energized lab while exposures are made. Lead aprons used in energized labs are provided and maintained by Forsyth Technical Community College and stored in the energized laboratory. Shielding devices should be properly cared for according to guidelines provided by experts in the radiation safety community.

Lead aprons are provided by each clinical facility for students who participate in fluoro procedures during clinical assignments. Each student will be fitted by their Clinical Preceptor for a lead apron appropriate for their size. These lead aprons are provided and maintained by the clinical facility. Students have the option of purchasing their own lead, in which case they are responsible for maintenance.

The following are recommendations for the inspection and testing of leaded shielding devices:

- Leaded shielding devices should be physically examined for gross defects including tears, perforations, and thinning creases. Devices that do not pass physical inspection should be removed from use and disposed.
- Devices that pass physical inspection should be examined fluoroscopically annually (before the fall semester) using manual settings. Automatic brightness control should not be used, because it will increase the tube current and voltage that results in unnecessary radiation exposure to medical personnel. Shielded areas will appear dark and defects, seams and stitching will appear light. Any device with a defect will be removed from service. See the leading shielding device check off for fluoroscopic inspection.
- Defective devices should be immediately removed from service and disposed of properly. Under the Resource Conservation and Recovery Act, the Environmental Protection Agency has established regulations for the disposal of hazardous wastes. Leaded shielding devices meet the criteria for hazardous waste.
- Proper storage of leaded shield devices is important to maintain the integrity of the lead. Lead aprons and thyroid shields should be stored on a flat surface or preferably hung vertically; lead aprons should be hung from the shoulders. The devices should never be folded to avoid cracking.
- Recommendations for cleaning devices include using cold water and a mild detergent solution, but do not use solvents, including bleach that would affect nylon fabric, urethane, polyvinyl chloride, or manmade rubbers.

Policies and procedures for wearing leaded shielding devices:

- Forsyth Technical Community College faculty and students adjacent to the main radiation beam should wear a 0.5 mm lead apron.
- Forsyth Technical Community College faculty and students, who may have to turn and stand with their back to the radiation beam, should wear a wrap-around lead apron. However, Forsyth Technical Community College faculty and students should face the radiation beam as often as possible. It is important to remember that the front of the lead apron contains a thicker layer of lead than the backside.

- Leaded aprons of different sizes, as far as length and width, should be available to in order to provide the needed protection. Shielding the upper portion of the legs and upper chest, in particular the breasts of females, is critical to protecting the long bones, bone marrow and soft tissues of the chest.
- Forsyth Technical Community College faculty and students 70cm (24inches) away from the direct beam during fluoro, should wear a lead thyroid shield and leaded eyeglasses.
 - The thyroid shield should be worn to protect the soft tissue structures of the neck, when the possibility exists for a high risk of radiation exposure.
 - Leaded eyeglasses should be worn by anyone who are adjacent to the main radiation beam, to prevent injury to the eyes, including cataracts, corneal ulcerations, and radiation-induced opacities.

A copy of the room shielding design is contained the appropriate Program Coordinator's Office.

9.17 ALARA

The Radiation Safety Plan for Forsyth Technical Community College's energized laboratories has procedures outlined in the Radiation Safety Plan to minimize exposure to all persons participating in lab and clinical experiences.

Forsyth Technical Community College faculty and students must adhere to all Radiation safety policies and procedures outlined in the Radiation Safety Plan. Forsyth Technical Community College faculty and students are responsible for learning and abiding by all Radiation Safety Plans at each clinical facility.

In addition, students entering the radiography and radiation therapy program are introduced to radiation safety & protection during new student orientation.

The radiation monitoring device policy is located in the Radiation Safety Plan.

9.18 SERVICE PROVIDERS

Each program has their own service provider for their energized laboratory. Service is provided as needed. All service records are kept by each individual program.

SECTION 10: PROFESSIONAL SOCIETIES/ORGANIZATIONS

10.0 NORTH CAROLINA SOCIETY OF RADIOLOGIC TECHNOLOGISTS, INC (NCSRT)

The North Carolina Society of Radiologic Technologists, Inc. accepts student members. Membership entitles the student to participate in the society's meetings and seminars, which offer informative lectures given by qualified professionals from North Carolina and the nation. A student must be a member of the North Carolina Society to submit papers or exhibits for consideration in Society competitions. (Application can be found at www.ncsrt.org)

- *The Radiography Program faculty strongly recommend students become members of their state society.*

10.1 AMERICAN SOCIETY OF RADIOLOGIC TECHNOLOGISTS (ASRT)

ASRT has many resources just for students. They help students prepare for the future and success in school.

Membership includes:

- **Exam Preparation-** student members get access to the *Radiography Student Exam Assessment Library™* which will help get them set for the radiography exam.
- **Resources and Study Tools-** the Student Center contains study modules and drill and practice exercises, among many other online resources.
- **Prepare for the Clinical Environment-** access to the Compliance Suite containing 33 modules on key competencies for working in health care.
- **Career Assistance-** access information videos and tips on résumés, job searches, interviews and more. Plus, you can ask questions and network with other students and R.T.s in your area in the ASRT Communities.
- **Exclusive Discounts-** save money on items you need such as textbooks, scrubs, shoes, ARRT exam preparation materials, home, and auto insurance and more. For additional information, visit www.asrt.org.
- ***Group membership is mandatory and will be established through the Program Coordinator.***

10.2 NATIONAL CERTIFICATION: THE AMERICAN REGISTRY OF RADIOLOGIC TECHNOLOGISTS (AART)

The American Registry of Radiologic Technologists is the nationally recognized certifying body for the profession. Upon completion of the curriculum, the student is eligible to apply to sit for the Registry Examination. This examination is given at selected test centers in North Carolina. All tests are computerized and scheduled dates and times are mandatory. Once application is accepted by the ARRT, the student is eligible to sit for the examination. Application forms will be distributed by the Program Director. www.arrt.org

SECTION 11: STANDARDS FOR AN ACCREDITED EDUCATIONAL PROGRAM IN RADIOLOGIC SCIENCES

11.1 STANDARDS FOR AN ACCREDITED EDUCATIONAL PROGRAM IN RADIOGRAPHY

Standard One: Integrity

The program demonstrates integrity in the following: representations to communities of interest and the public, pursuit of fair and equitable academic practices, and treatment of, and respect for, students, faculty, and staff.

Standard Two: Resources

The program has sufficient resources to support the quality and effectiveness of the educational process.

Standard Three: Curriculum and Academic Practices

The program's curriculum and academic practices prepare students for professional practice.

Standard Four: Health and Safety

The program's policies and procedures promote the health, safety, and optimal use of radiation for students, patients, and the public.

Standard Five: Assessment

The program develops and implements a system of planning and evaluation of student learning and program effectiveness outcomes in support of its mission.

Standard Six: Institutional/Programmatic Data

The program complies with JRCERT policies, procedures, and **STANDARDS** to achieve and maintain specialized accreditation.

Note: A complete printed copy of the JRCERT Standards is available for review, it is located in the Radiography classroom W203. An electronic copy may be found at www.JRCERT.org (Select Programs & Faculty, JRCERT Standards, and then Radiography Standards 2021)

11.0 RESOLUTION OF COMPLAINTS RELATING TO NON-COMPLIANCE WITH THE STANDARDS FOR AN ACCREDITED EDUCATIONAL PROGRAM IN RADIOLOGIC TECHNOLOGY

The Radiography Program at Forsyth Technical Community College is accredited by:

The Joint Review Committee on Education in Radiologic Technology

20 North Wacker Drive, Suite 2850

Chicago, IL 60606-3182

(312) 704-5300

E-Mail: mail@jrcert.org

The Radiography Program follows due process upon receipt of a written, signed allegation that the program does not comply with the STANDARDS. Responses to allegations will be handled within ten working days of receipt.

The complaint should be directed to:

Dean, Health Sciences Division
Bob Greene Hall
2100 Silas Creek Parkway
Winston-Salem, NC 27103
(336) 734-7412

If the complaint is not reconciled, it should be appealed to:

Vice President for Student Academic Success & Chief Academic Officer
Robert L. Strickland Center
2100 Silas Creek Parkway
Winston-Salem, NC 27103
(336) 734-7182