



SCHOOL OF RADIOLOGIC TECHNOLOGY

Student Handbook

Handbook of Policies, Procedures and Guidelines

Revised: June 2018

The information contained in this handbook is subject to change at any time

TABLE OF CONTENTS	PAGE
SECTION I: INTRODUCTION & SCHOOL OVERVIEW	
Faculty Roster	4
Department Administration and Clinical Contacts	5
Overview of AEMC's School of Radiologic Technology	7
Mission of the Program	7
Goals	7
Master Plan	9
Program Affiliation	10
Program Accreditation	10
Allegations of Non-Compliance with JRCERT Standards	11
Profession of Radiologic Technology	11
Examination for Radiography Certification	11
Overview of EHN	12
Network's Mission	13
Network's Vision	14
Network's Code of Conduct	14
Network's Standards of Behavior	15
SECTION II: CURRICULUM	
Radiography Curriculum	18
Radiography Course Descriptions	19
Graduation Requirements	25
SECTION III: DIDACTIC EDUCATION POLICIES	
Didactic Course Grading and Policy	27
Didactic Course Failure	27
Didactic Dismissal	27
Class Attendance	28
Academic Progress	28
Transcripts	28
SECTION IV: CLINICAL EDUCATION POLICIES	
Clinical Education Grading and Policy	29
Clinical Education Course Failure	29
Clinical Education Assignments	29
Clinical Education Supervision	29
Clinical Education Rules of Conduct	31
Clinical Education Dress Code	32
Clinical Competency Evaluation Policy	33
Clinical Competency Evaluation Form	34
Clinical Competency Evaluation Criteria	36
Clinical Proficiency Evaluation Policy	37
Clinical Proficiency Evaluation Form	38
Clinical Proficiency Evaluation Criteria	40
Laboratory Simulation Evaluation	42
Laboratory Final Simulation	44
Impromptu Simulation Evaluation	46
Clinical Progress Self Evaluation Form	48
Clinical Evaluation of Student Form	50
SECTION V: CONDUCT & DISCIPLINE	
Responsibilities of the Faculty	51
Responsibilities of the Student	51
Rights of the Student	51
Counseling	52

TABLE OF CONTENTS	PAGE
General Rules of Conduct	52
Disciplinary Action	52
Grievance Procedure	53
Dismissal Appeals	54
Student Employment	54
Cell Phone Policy	54
Drug and Alcohol Abuse Prevention Policy	54
Smoking Policy	55
SECTION VI: ATTENDANCE POLICIES	
Attendance Policy	57
Lateness Policy	57
Semester Breaks	57
Unexcused Absence	58
Time Records	58
Personal Time Off	58
Inclement Weather	58
Jury Duty	59
Death in the Family	59
Interview Days	59
Pregnancy Policy	59
SECTION VII: GENERAL POLICIES	
Advisory Committee	60
Ad Hoc Committee of the Advisory Committee	60
Admission	60
Transfer Student Policy	63
Re-Admission Policy	63
Dismissal policy	63
Withdrawal Policy	63
Changes in Policy	63
Educational Records	64
Student Health Services	64
MR Safety Policy	65
Tuition and Fees	66
Tuition Policy	67
Tuition Refund Policy	67
SECTION VIII: STUDENT RESOURCES & SERVICES	
Cafeteria and Gift Shop	68
Computer Access	68
Emergency Messages	68
Learning Resources	68
Liability Insurance	69
Library	69
Lockers	69
Radiation Safety	69
Testing Accommodation	70
APPENDICES:	
EHN Pregnancy Policy for Occupation Radiation Workers	71
Declaration of Pregnancy Form	74
MR Safety Form for the Radiography Student	76
EMCP Radiology Departmental Policy MR Safety	78
ARRT's Code of Ethics	89
Patient's Bill of Rights	90
Patient Care Partnership	92

SECTION I: INTRODUCTION & SCHOOL OVERVIEW

FACULTY ROSTER

Faculty

Linda J. DeRenzis, MEd, BSAH, RT(R)

Program Director

DeRenzisl@einstein.edu

Office 215-456-6398

Cell 215-852-6832

Fax 215-456-8949

Rosemary Thomas, MSTD, RT(R)

Clinical Coordinator

Thomas17@einstein.edu

Office 215-456-6234

Fax 215-456-8949

Christine Szymkowski, MEd, BSAH, RT(R), (CT)

Didactic Instructor

cesphysics@comcast.net

Cell 856-449-2582

Course(s)

Radiographic Anatomy and
Positioning III
Ethics and Modern Health Issues
Physiology
Pathology
Cross Sectional Anatomy
Certification Examination Review

Medical Terminology
Patient Care
Radiographic Anatomy and
Positioning I, II

Physics I, II, III
Radiographic Technique I, II, III
Radiation Protection
Advanced Imaging Modalities
Quality Assurance and Computer
Concepts

Clinical Instructors

Donna Fisher, RT(R)

FisherD@einstein.edu

Lauren Herman, AS, RT(R)

HermanL@einstein.edu

Deborah Jereb, AS, RT(R)

JerebD@einstein.edu

Michael Kelly, RT(R)

KellyMG@einstein.edu

Stephanie Nutridge, AS, RT(R)

LancastS@einstein.edu

Campus Location

EMCM

EMCP

Holmesburg Radiology

EMCP

EHN King of Prussia

Anthony Penta, RT(R), (MR)
PentaA@einstein.edu

EMCP

Jill Penta, RT(R)
WaltonJ01@einstein.edu

EMCEP

Christina Ries, AS, RT(R)
HoganT@einstein.edu

EMCP

Brandon Sams, RT(R)
SamsB@einstein.edu

EMCP

Deborah Selser, RT(R)
SelserD@einstein.edu

EHN Collegeville

Lauren WeMett, AS, RT(R)
Romano01@einstein.edu

EMCM

Mary Whitacre, RT(R)
FerryM@einstein.edu

Einstein Center One

Cecelia Wright, RT, (R)
WrightC@einstein.edu

EMCP

Administration

Dr. Terence Matalon, MD
Chairman Radiology
MatalonT@einstein.edu
Office 215-456-6225

Cheryl Stewart, AS, RT(R)
Director Radiology
StewartC@einstein.edu
Office 215-456-6205

Bonnie Benson, AS, RT(R)
Radiology Manager
BensonB@einstein.edu
Office 215-456-6239

Dr. Micah Cohen
Medical Advisor
CohenMic@einstein.edu
Office 215-456-6258

Departments

Cardiac Catheterization Lab
215-456-7262

Computed Tomography
215-456-8063

General Radiology
215-456-6277

Supervisor

Doreen Bearden
BeardenD@einstein.edu

Rose Hall
HallR@einstein.edu

Anthony Penta
PentaA@einstein.edu

Interventional Radiology

215-456-6433

Tim McKee

McKeeTim@einstein.edu**Mammography**

215-456-6253

Donna Burke

BurkeD@einstein.edu**Magnetic Resonance Imaging**

215-456-5858

Diane Buck

BuckD@einstein.edu**Nuclear Medicine**

215-456-6261

Rachel Wuller

WullerR@einstein.edu**Radiation Oncology**

215-456-6295

Christina Blake

BlakeC@einstein.edu**Ultrasound**

215-456-3841

Kelly Harold

HaroldK@einstein.edu**Einstein Center One**9880 Bustleton Ave.
Philadelphia, PA 19115
215-827-1457

Jill Buckley

BuckleyJ@einstein.edu**EHN Collegeville**100 Market Street
Collegeville, PA 19426
484-622-6440

Cheryl Cleveland-Stewart

StewartC@einstein.edu**EHN Holmesburg**8015 Frankford Avenue
Philadelphia, PA 19136
215-827-1402

Jill Buckley

BuckleyJ@einstein.edu**EHN King of Prussia**210 Mall Boulevard
King of Prussia, PA 19406
610-233-3799

Cheryl Cleveland-Stewart

StewartC@einstein.edu**EMC Elkins Park**60 Township Line Rd.
Elkins Park, PA 19027
215-663-6080

Cheryl Cleveland-Stewart

StewartC@einstein.edu**EMC Montgomery**559 West Germantown Pike
East Norriton, PA 19403
484-622-0700

Cheryl Cleveland-Stewart

StewartC@einstein.edu

OVERVIEW OF ALBERT EINSTEIN MEDICAL CENTER'S SCHOOL OF RADIOLOGIC TECHNOLOGY

The Albert Einstein Medical Center's School of Radiologic Technology at Einstein Medical Center Philadelphia campus or otherwise known as "the Program" has been in existence since 1946, graduating its first class in 1948. The Program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT). Graduates are eligible to apply for admission to the certification exam administered by the American Registry of Radiologic Technologists (ARRT). Eligibility requirements for ARRT certification in Radiography will call for candidates to have earned an associate (or more advanced) degree from an accredited agency effective January 1, 2015.

Students in the Program gain a wealth of knowledge in the Einstein Medical Center Philadelphia ("EMCP"), Department of Radiology and in the various satellite facilities. A wealth of training materials are available from the over 264,000 diagnostic examinations performed annually. Aside from the many routine diagnostic rooms, specialized facilities are available in angiography, fluoroscopy, neuroradiography and ultrasound, as well as head and whole-body spiral computed tomography, magnetic resonance imaging and PACS. The Department is fully digital in producing patient examinations. An entire section of the Department is devoted to the performance of mammography procedures. Students also gain valuable outpatient clinical experience at some of Einstein Healthcare Network's ("EHN") satellite facilities in the Philadelphia area.

The Program is twenty-three (23) months. Upon successful completion of all the Program's academic and clinical requirements, a student will be awarded a Certificate in Radiologic Technology from AEMC. The Program has a July starting date with orientation for all first year students commencing the first week of July. Classes and clinical education are scheduled Monday through Friday 8 AM to 4 PM and do not exceed a total of 40 hours weekly.

The Albert Einstein Medical Center's School of Radiologic Technology considers all candidates for admission without regard to age, race, color, national or ethnic origin, religion, sex, or disability.

MISSION OF THE PROGRAM

The mission of the Albert Einstein Medical Center's School of Radiologic Technology is to graduate students who will possess the knowledge, practical skills and problem solving abilities to provide care to the community.

GOALS OF THE PROGRAM

Fulfillment of the Program's mission is assessed by the degree to which the Program achieves the following goals:

- 1. Graduates will be academically and clinically competent.**
Student Learning Outcome:
 - 1.1 Students will assimilate curricular knowledge when performing imaging procedures.
 - 1.2 Students will provide patient-centered, clinically effective care for all patients.

- 2. Graduates will be able to problem solve and effectively use critical thinking skills.**
Student Learning Outcome:
 - 2.1 Students will identify diagnostic quality images and correct non-quality images accordingly.

2.2 Students will apply appropriate precautions and techniques to ensure safety.

3. Graduates will be competent radiographers with effective communication skills.

Student Learning Outcome:

3.1 Students will integrate clear and concise patient instruction during all procedures.

3.2 Students will utilize computer systems to communicate and to record data and patient information.

4. Graduates will demonstrate professional and ethical behavior.

Student Learning Outcome:

4.1 Students will follow departmental policies and procedures.

4.2 Students will maintain confidentiality and HIPAA requirements.

Past ARRT results:

2013 – N/A

2014 – N/A

2015 – 100%

2016 – 100%

2017 – 100%

5 Yr. average – 100% (No results for 2013, 2014)

The Program adheres to the following minimum standards:

A five-year average credentialing examination pass rate of not less than 75% at first attempt.

A five-year average job placement rate of not less than 75% within twelve months of graduation.

An annual student completion rate of not less than 75%.

An annual average graduate satisfaction rate of not less than “3” on Graduate Surveys.

An annual average employer satisfaction rate of not less than “3” on Employer Surveys.

The aforementioned Program Effectiveness Data can be accessed at any time on the school website

<http://www.einstein.edu/education/radiology-technology/> or is located in the school office.

The data is also accessible via the JRCERT website at any time at:

<https://portal.jrcertaccreditation.org/summary/programannualreportlist.aspx>

MASTER PLAN

The Albert Einstein Medical Center's School of Radiologic Technology at Einstein Medical Center Philadelphia campus ("EMCP") offers experience at Einstein Medical Center Elkins Park ("EMCEP"), Einstein Medical Center Montgomery ("EMCM"), Einstein Medical Center Philadelphia ("EMCP"), Einstein Center One, EHN Collegeville, EHN Holmesburg and EHN King of Prussia. The Program is an outcomes-based program. This Program is designed to provide the community with diagnostic imaging professionals who have not only achieved clinical competency but proficiency in Radiologic Technology. Proficiency is "performing in a given art, skill, or branch of learning with expert correctness and facility."¹ It is believed that graduates of the Program will be of the highest caliber. They will contribute to the diagnosis and treatment of disease by providing radiologists with the highest quality images obtainable.

In order to achieve proficiency, students must master a wide variety of academic and clinical objectives. Students' cognitive, psychomotor and affective skills are simultaneously developed throughout the 23-month Program. Students must progress through a structured system of classroom, laboratory and clinical experience to achieve competency. Once the baseline of competency has been achieved, students remain on the clinical floor/units performing numerous additional examinations until proficiency is established.

The Program's clinical education component, in which students must maintain an overall course grade of 85%, is a well-structured and supervised system that reinforces and supplements the information presented in the didactic courses. It allows for the gradual development and eventual mastery of the students' skills. The mastery of these skills occurs over the 23-month program.

After students have demonstrated successful retention of the didactic subject matter, they are given a laboratory demonstration by the Program faculty and ample time to practice performing the examination. After sufficient practice, the students are tested via the Simulation (Sim) Evaluation. Students who receive an 85% or better on the Sim are then permitted to perform the examination on patients under the direct supervision of the staff technologist. Direct supervision is supervision by a qualified radiographer who reviews the procedure in relation to student achievement, evaluates the condition of the patient in relation to student knowledge, is present during the conduct of the procedure, and approves the procedure.

Once students feel they are competent in performing a particular examination under direct supervision, they may request to be tested by a clinical advisor, Clinical Instructor or faculty via a Clinical Competency Evaluation (CCE). Students who achieve 85% or better on the CCE are then able to perform the examination with indirect supervision in the future. Indirect supervision is supervision by a qualified radiographer immediately available to assist the student regardless of the level of student achievement. Immediately available is interpreted as the physical presence of a qualified radiographer adjacent to the room or area the procedure is performed. Students are later retested on the various body parts via the Proficiency Evaluation (Prof). In order to pass the Prof, a grade of 85% or better is required.

At the end of the 23-month curriculum, students must demonstrate competency in all ten (10) mandatory General Patient Care Activities and thirty-seven (37) mandatory Radiological Procedures as set forth by the American Registry of Radiologic Technologists ("ARRT"). Up to eight (8) of the aforementioned mandatory procedure competencies may be simulated. Students must also demonstrate competency in at least 15 of the 34 elective procedures set forth by the ARRT. Electives may be on patients (CCE), phantoms or as simulations. In addition, the General Patient Care competencies may be simulated if performance on a patient is not possible. Students who have not

¹ As defined by the American Heritage Dictionary

achieved competency in all examinations by graduation may be required to remain in the Program. School of Radiologic Technology Certificates will not be granted until all such requirements are met.

Students must attain an overall course grade of 75% or better in the following didactic courses:

Medical Terminology, Patient Care Standards, Physics, Radiographic Anatomy and Positioning, Radiographic Technique, Ethics and Modern Health Issues, Physiology, Quality Assurance and Computer Concepts, Radiation Protection, Advanced Imaging Modalities, Pathology and Cross Sectional Anatomy.

Prior to graduation from the Program, students must also possess a college degree of an Associate of Science ("AS") or higher degree in the related field of Radiologic Sciences.

In order to meet the Program's college degree requirement students must meet one of the following requirements prior to graduation:

- Possess an AS or higher degree in the related field of Radiologic Science from a regionally accredited college; or
- Be enrolled in a 2+2 medical imaging program at a regionally accredited college that grants a degree upon completion of the Albert Einstein Medical Center School of Radiologic Technology program; or
- Successfully complete all associate degree requirements set forth by Philadelphia University which is comprised of the completion of a minimum of 21 credits of Philadelphia University coursework, including: MATH 215-College Algebra, PSYCH 101- Introduction to Psychology, WRTG 105-Writing for the Workplace Culture, IT 201-Learning with Technology, HIST 114-Rise of the Modern World: American Transitions, HUMN301-Art in Context and PLA 100-Scientific Reasoning.

PROGRAM'S AFFILIATION WITH JEFFERSON Philadelphia University + Thomas Jefferson University

Albert Einstein Medical Center's School of Radiologic Technology has developed an affiliation agreement with Jefferson Philadelphia University + Thomas Jefferson University to offer academic courses that will enable students to pursue an Associate of Science Degree in Health and Human Sciences: Radiologic Technology.

PROGRAM ACCREDITATION

Albert Einstein Medical Center's School of Radiologic Technology is accredited by the –

Joint Review Committee on Education in Radiologic Technology

20 North Wacker Drive, Suite 2850

Chicago, Illinois 60606-3182

312-704-5300

email: mail@jrcert.org

To be an approved and accredited program in radiologic technology, Albert Einstein Medical Center's School of Radiologic Technology, must meet the "JRCERT Standards".

The “Standards” present the minimum accreditation standards for an educational program and includes all the requirements for which the program is held accountable.

Should an enrolled student in the Program feel that the Program has not met the minimum standard of education or an issue has gone unresolved; the student should contact the JRCERT to submit an allegation. Every effort will be taken to resolve student issues. No retaliation actions will be taken by the Program.

Go to: www.jrcert.org

Students

Reporting Allegations

Reporting Process

Allegation Reporting form

THE PROFESSION OF RADIOLOGIC TECHNOLOGY

Radiologic technologists, or Radiographers, are integral parts of the health care team. They use their knowledge of anatomy, physiology, positioning and radiation technique to obtain high quality diagnostic images of the human body. They employ the dexterity developed during training to complete examinations safely and quickly. They work with some of the most sophisticated technologically advanced equipment presently available and, at the same time, they enjoy the rewards of close patient contact. Radiographers are certified through the American Registry of Radiologic Technologists.

Radiologic Technology is a personally rewarding, well-respected profession with great potential for growth. Hospitals and clinics employ the majority of radiographers, but there are many other settings in which they work. Radiographers may pursue higher education and gain employment in teaching, research or sales, or they may cross-train into the hi-tech areas such as special procedures, computerized tomography or magnetic resonance imaging.

EXAMINATION FOR RADIOGRAPHY CERTIFICATION

Applicants must be of good moral character. Generally, the conviction of any offense, misdemeanor or felony, indicates a lack of good moral character for certification purposes. Those who have been convicted of a crime may be eligible for certification if they have served their entire sentence, including probation and parole, and have their civil rights restored. This determination is made by the American Registry of Radiologic Technologists.

After successful completion of the Program, graduates are awarded a Certificate in Radiologic Technology from AEMC. Beginning January 1, 2015 graduates must possess an Associate Degree or higher in order to be eligible to take the certification examination in radiography, which is administered by the American Registry of Radiologic Technologists (ARRT). Pearson VUE, the electronic testing business of Pearson Education, administers ARRT examinations. Graduates who successfully pass the examination are credentialed by the American Registry of Radiologic Technologists, which enables them to use the title “Registered Technologist” or RT(R). Most employers require radiologic technologists be registered by the ARRT.

It is the responsibility of the student/graduate to obtain, complete and submit the application for the American Registry of Radiologic Technologists.

OVERVIEW OF THE EINSTEIN HEALTHCARE NETWORK

EMCP is part of the Einstein Healthcare Network, a private, not-for-profit healthcare system that includes many entities and programs or divisions important to the healthcare needs of people in our surrounding communities.

Einstein was originally founded at the end of the Civil War in 1866, as Philadelphia's Jewish Hospital – with a mission to care for the disenfranchised beyond the Jewish community, including former and freed slaves. As such our values and fundamental strengths were developed from our Jewish roots. “Being community” is at the core of Jewish responsibility, and it is defined by the fundamental beliefs of empathy, stewardship, justice and obligation. Being community goes beyond being ‘part’ of a community, and embraces the practice of individuals coming together for a common purpose and aligning around similar ideals and interests.

For more than 140 years, Einstein physicians and staff have been leaders in the art and science of healing. Since the founding of the Jewish Hospital, we have remained at the forefront of medical science. Our physicians pioneered and perfected many of today's widely practiced medical techniques. We continue to develop new strategies to meet the challenges facing healthcare today and tomorrow.

The facilities included in the Network are:

Einstein Medical Center Elkins Park: is a 60-bed general acute care hospital located on a 30-acre suburban campus in Montgomery County. The hospital offers a full range of services, including a 24-hour Emergency Department staffed by board-certified emergency medicine physicians, highly skilled emergency nurses and key specialists on-call. The Elkins Park location also provides a broad spectrum of inpatient and outpatient surgical services, diagnostic imaging services and general nuclear medicine and cardiology services.

Einstein Medical Center Montgomery: A full-service, acute-care hospital, Einstein Medical Center Montgomery has 146 beds and offers advanced services including: 24-hour emergency care, cardiac services, including open heart surgery and cardiac catheterization and advanced obstetrical care including a Level III B NICU.

Einstein Medical Center Philadelphia: A tertiary-care, teaching hospital, offering a full range of advanced healthcare services for kidney, pancreas and liver disease and transplantation, cardiovascular disease, women's health, cancer care, orthopedics and geriatric care. The medical center also includes a Level I Regional Resource Trauma Center, a Level III Neonatal Intensive Care Unit, and community practice centers.

Belmont Behavioral Health Center for Comprehensive Treatment: The Belmont Center provides the full continuum of psychiatric care, providing emergency, triage and evaluation, outpatient, intensive outpatient, partial hospital, inpatient, residential and outpatient services. The Belmont Center is part of the Network's Belmont Behavioral Health service line, which is the largest, most comprehensive behavioral health system in the Philadelphia region, providing a wide range of services for children, adolescents, and adults of all ages. Services span the full continuum of care, including crisis intervention and inpatient and outpatient care. Specialized services are offered for eating disorders, substance abuse, anxiety, depression and other mood disorders, as well as for people with both a mental illness and a substance abuse problem. Behavioral health services are also provided at the EMCP.

Einstein Center One: Located in Northeast Philadelphia, Einstein Center One houses primary care and specialty care physician offices and an ambulatory surgery center. This outpatient medical facility offers

services including oncology, diagnostic radiology, nuclear radiology, cardiology, gastroenterology, urology, obstetrics/gynecology, ophthalmology, orthopedics, psychiatry and dentistry.

EHN Collegeville: The new center, located in Providence Town Center, is not just for simple sniffles or flu shots, although primary care treatment is available. Other medical services provided by Einstein physicians include pain management, orthopedics, hepatology for advanced liver disease, nephrology, endocrinology, rheumatology, cardiology and integrative medicine, which combines traditional treatment with methods such as massage and acupuncture. The center has an outpatient laboratory, a radiology department for x-rays and other scans, and services provided by MossRehab.

EHN Holmesburg: This new outpatient care center offers a full range of specialty care services, including a multispecialty suite that includes providers with specialties in general surgery, vascular surgery, bariatric consultation and evaluation, pulmonology, endocrinology, rheumatology, electrophysiology, urology, nephrology and orthopedic subspecialties, including foot and ankle, spine, shoulder, sports medicine and joint replacement. The site also offers outpatient imaging, such as ultrasound, dexascan, and full field digital mammography.

EHN King of Prussia: The new center, located in King of Prussia features a wide range of medical specialists and services, including primary care, obstetrics and gynecology, orthopedics, radiology and outpatient laboratory services, and physical medicine and rehabilitation from MossRehab.

MossRehab: Located at Elkins Park and on Einstein’s main campus, MossRehab has been repeatedly recognized by U.S. News & World Report as one of the nation’s best medical rehabilitation providers. Special programs include the Drucker Brain Injury Center, Stroke Center (one of the first in the nation to receive accreditation by CARF as a stroke specialty program), Amputee Center, and the MossRehab Driving School. MossRehab is also a federally designated Model System of Care for traumatic brain injury.

Willowcrest: A restorative care facility located on Einstein’s main campus, providing physician-directed, skilled nursing care and rehabilitation to help patients return to independence following hospitalization.

OUR NETWORK’S MISSION

With humanity, humility and honor, to heal by providing exceptionally intelligent and responsive healthcare and education *for as many as we can reach* –

- By “with humanity” we mean – with humanness and benevolence
- By “humility” we mean – with a modest view of our own importance
- By “honor” we mean – with due esteem and reverence
- By “heal” we mean – to restore physical and emotional integrity, bring into balance or provide comfort, whether for body, mind, spirit or community
- By “exceptionally intelligent” we mean – by relentlessly reaching for the most comprehensive and incisive knowledge
- By “responsive” we mean – by anticipating needs and responding in a timely manner
- By “as many as we can reach” we mean – those in the geographic and demographic communities that we serve

OUR NETWORK'S VISION

Einstein Brilliance and Compassion – *In All We Touch*

By “Brilliance” we mean – our aspiration to shine in all that we do; to have exceptional intellectual clarity and grace; to uniquely comprehend, understand and benefit from experience.

- By “Compassion” we mean – to treat with dignity and respect; to have a deep and human understanding of the feelings of others and a motivation to act to alleviate or reduce suffering.
- By “In All We Touch” we mean – at every level of our being; the internal working relationships of the organization and the individuals, populations or communities with whom we live and interact.

THE NETWORK'S CODE OF CONDUCT

RESPECT – Value Others

- Appreciate the differences of each individual
- Safeguard privacy and confidentiality
- Seek the expertise and experience of others

EMPATHY – Be With Them

- Anticipate the needs of those we serve
- Actively seek to understand people's feelings and intensions
- Show those we serve that they are not alone

RESPONSIBILITY – Watch, Listen, Act

- Protect from harm
- Band together as community
- Explore opportunities embedded in conflict

AFFINITY – Nurture Each Other

- Mentor the growth, education, and development of others
- Band together as community
- Find the humor that connects

INTEGRITY – Do Right

- Keep our word
- Listen to all sides of the story
- Conduct ourselves with honesty and fairness

EHN's STANDARDS OF BEHAVIOR

Respect

Definition: A feeling or understanding that someone or something is important, serious, and should be treated in an appropriate way.

- I will introduce myself and my role before providing any service.
- In all interactions, I will use a pleasant tone of voice, make eye contact, and if appropriate, smile.
- I will treat everyone I interact with as a priority, by acknowledging their presence, tending to their needs, and letting them know that I am glad to help.
- I will be mindful of my own and other's time by being punctual to work, meetings, and when delivering patient care.
- I will maintain a quiet and healing environment by using a low tone of voice in patient care areas.
- I will remain calm, listen, and demonstrate an open, friendly posture, even during challenging situations.
- I will pay attention to what others are saying and check for understanding by repeating back what is said and asking questions to confirm understanding.
- I will honor each patient's dignity by ensuring all confidential information and communication takes place with only the appropriate people.
- I will be respectful of diversity within our patient and employee population. I will be sensitive to age, color, culture, disability, education, gender, gender identity, nationality, race, religion, sexual orientation, veteran's status, and all other forms of diversity.

Empathy

Definition: The power of understanding and imaginatively entering into another person's feelings. (In other words, putting yourself in the other person's shoes and imagining what the situation would be like for him or her.)

- I will, without bias, be fully present with each person, be on the person's level, and make their most important needs my most important priority.
- I will acknowledge others' needs and offer assistance.
- I will respond to the emotional needs of others by offering verbal and nonverbal support and connection, always considering each person's individual and cultural preferences.
- I will show compassion by using a gentle, comforting tone of voice, caring facial expressions, and light touch, if appropriate and if given permission.
- I will help lost patients, visitors, and new employees by escorting them to their destination. I will avoid pointing and direction-giving to the greatest extent possible.

- I will listen and recognize the need to apologize without assigning blame.

Responsibility

Definition: The state or fact of being responsible, answerable or accountable for something within one's power, control or management.

- I will show up on time, be fully present, and accept my individual responsibilities as a team member.
- I will proudly take ownership of my attitude, appearance, and actions to maintain a welcoming, safe environment for myself and others.
- I will take responsibility for my role in my patients', co-workers', and customers' experiences. I will not use the phrases "It's not my job," or "I don't know." If I am unable to meet a request, I will find someone who can or contact the appropriate department for follow-up.
- I will ensure that my actions, behaviors, and decisions taken on behalf of Einstein Healthcare Network reflect positively on the organization.
- I will review and share information in a timely manner. I will acknowledge emails and voicemails promptly and stay informed by reading department and network communications (e.g., network emails, newsletters, policies, etc.).
- I will always perform hand hygiene before and after interacting with each patient.
- I will care for my own health, well-being, and emotions so that I can better care for others.
- I will actively participate in group problem-solving and include the appropriate people in the process. I will not just identify issues but offer ideas for resolution.
- I will use the AIDET (Acknowledge-Introduce-Duration-Explanation-Thank you) communication framework with patients to ensure they receive a consistent experience of caring, concern, and appreciation at Einstein.

Affinity

Definition: A feeling of closeness and understanding that someone has for another person because of their similar qualities, ideas or interests; a liking for or an attraction to something; a quality that makes people or things suited to each other.

- I will work as a team player by offering assistance generously without hesitation, encouraging and thanking my colleagues, and ensuring good handoffs.
- I will give and receive help from others; I will share responsibility to get the work done in the best way possible.
- I will welcome new employees to the organization. I will mentor and provide ongoing support to help them be successful.

- I will seek to inspire confidence in Einstein Healthcare Network by sharing with patients, customers, and others in the community, whenever appropriate, the positive attributes of my co-workers, the medical staff and our organization.
- I will purposefully engage with those I work with and those I serve by attempting to find common ground and creating connections.
- I will celebrate others in happy times and support others through hard times.
- I will build rapport with patients – engaging with them by listening to their stories and involving them in decisions about their care.

Integrity

Definition: A quality of being honest and fair; adherence to moral and ethical principles; soundness of moral character.

- I will do the right thing, even when no one is looking.
- I will appropriately manage the organization’s time, resources, equipment, supplies, and facilities.
- I will be honest with our patients and my co-workers.
- I will provide honest, constructive feedback to peers, leaders and direct reports. I will ask for and be open and gracious when receiving feedback.
- I will ensure the privacy, completeness, and validity of medical records, correspondence, and dialogue.
- I will be consistent and fair in holding myself and others accountable.
- I will advocate for those we serve in order to fulfill the mission of Einstein Healthcare Network.

SECTION II: CURRICULUM

RADIOGRAPHY CURRICULUM

Term I

RT101- Medical Terminology
RT102- Patient Care Standards

Term II

RT103- Physics I
RT104- Radiographic Anatomy and Positioning I
RT105- Radiographic Technique I
RT106- Clinical Education I

Math 215

Term III

RT203- Physics II
RT204- Radiographic Anatomy and Positioning II
RT205- Radiographic Technique II
RT206- Clinical Education II

IT 201

Term IV

RT303- Physics III
RT304- Radiographic Anatomy and Positioning III
RT305- Radiographic Technique III
RT306- Clinical Education III
RT607- Ethics and Modern Health Issues
* Junior Comprehensive Examination

Term V

RT306-Clinical Education III continued
RT403- Radiation Protection

WRG 105

PSYCH 101

Term VI

RT406- Clinical Education IV
RT408- Physiology
RT409- Advanced Imaging Modalities
RT612- Certification Examination Review

HUMN 301

Term VII

RT506- Clinical Education V
RT510- Quality Assurance and Computer Concepts
RT511- Pathology
RT604- Cross Sectional Anatomy
RT612- Certification Examination Review

HIST 114

PLA 100

Term VIII

RT606- Clinical Education VI
RT612- Certification Examination Review
* Senior Comprehensive Examination

Jefferson Philadelphia University + Thomas Jefferson University Courses

COURSE DESCRIPTIONS

RT-409 Advanced Imaging Modalities

This course will introduce the students to the fundamental principles of the advanced imaging modalities. History, current and future uses of each modality will be discussed. Various images will also be presented. Content is delivered by faculty and by staff technologists who specialize in each area. (37.5 clock hours)

RT-612 Certification Examination Review

This course is designed to prepare the student to take the American Registry of Radiologic Technologists examination. The information presented throughout the 23 month program is reviewed through lecture, handouts and games. The student is given a number of registry type practice examinations. All required mock registry examinations must be completed prior to completing the program. (90 clock hours)

Prerequisites: All RT courses, successful completion (minimum grade of 75) of four (4) Pre-mock examinations

RT-106 Clinical Introduction & Clinical Education I

This course is designed to introduce the student to the performance of basic radiographic procedures and application of health care principles. It will include a clinical education introduction, which will consist of 171 hours of observation time in various radiology departments. The student will begin by observing department routines and procedures, practicing patient care skills, and move into a more active role of performance. Upon completion of the observation hours, the student will observe and participate in chest radiography, general radiography (outpatient & inpatient), gastrointestinal/genitourinary radiography, emergency/trauma radiography, portable radiography, and surgical radiography. The student may also observe and participate in advanced imaging modalities such as computed tomography, interventional radiography, magnetic resonance imaging, mammography, nuclear medicine, radiation therapy, and ultrasound. The student will begin performing clinical competency examinations on the abdomen, chest, and extremities. (439 clock hours)

RT-206 Clinical Education II

This course is sequentially linked to Clinical Education I and will continue to provide clinical rotations in various areas of the radiology department. The student will continue working on required radiographic competencies and is expected to demonstrate a more confident persona when performing basic procedures learned in the previous semester. The student will also continue to refine patient care skills. The student will observe, participate, and perform in many rotations including chest radiography, general radiography (outpatient & inpatient), gastrointestinal/genitourinary radiography, emergency/trauma radiography, portable radiography, and surgical radiography. The student may also observe and participate in advanced imaging modalities such as computed tomography, interventional radiography, magnetic resonance imaging, mammography, nuclear medicine, radiation therapy, and ultrasound. Students will begin performing clinical competency examinations on the spine, head, gastrointestinal and genitourinary systems. (268 clock hours)

Prerequisite: RT-106 Clinical Introduction & Clinical Education I

RT-306 Clinical Education III

This course is sequentially linked to Clinical Education II and will continue to provide clinical rotations in various areas of the radiology department. The student will have received classroom and laboratory instruction in all general diagnostic radiographic procedures. The student will observe, participate, and perform in many rotations including chest radiography, general radiography (outpatient & inpatient), gastrointestinal/genitourinary radiography, emergency/trauma radiography, portable radiography, and surgical radiography. The student may also observe and participate in advanced imaging modalities such as computed tomography, interventional radiography, magnetic resonance imaging, mammography, nuclear medicine, radiation therapy, and ultrasound. The student has gained more confidence by this semester and usually requires minimal supervision from the staff radiographers when performing general diagnostic procedures for which he/she has demonstrated competence. The student will continue working on required radiographic competencies and will continue to refine skills in procedures for which he/she has previously demonstrated competency. The student will also continue to refine patient care skills. As the student achieves competency, he/she will begin performing more studies under indirect supervision. (500 clock hours)

Prerequisites: RT-106 Clinical Introduction & Clinical Education I, RT-206 Clinical Education II

RT-406 Clinical Education IV

This course is sequentially linked to Clinical Education III and will continue to provide clinical rotations in various areas of the radiology department. The student is confident by this semester and usually requires minimal supervision from the staff radiographers when performing general diagnostic procedures. The student has also gained confidence in his/her ability to critique radiographic images. The student will observe, participate, and perform in many rotations including chest radiography, general radiography (outpatient & inpatient), gastrointestinal/genitourinary radiography, emergency/trauma radiography, portable radiography, and surgical radiography. The student may also observe and participate in advanced imaging modalities such as computed tomography, interventional radiography, magnetic resonance imaging, mammography, nuclear medicine, radiation therapy, and ultrasound. The student will continue to refine skills in procedures for which they have previously demonstrated competency and will also continue to refine patient care skills. The student will continue working on required radiographic competencies and begin to complete proficiency evaluations on all body parts. (391 clock hours)

Prerequisites: RT-106 Clinical Introduction & Clinical Education I, RT-206 Clinical Education II, RT-306 Clinical Education III

RT- 506 Clinical Education V

This course is sequentially linked to Clinical Education IV and will continue to provide clinical rotations in various areas of the radiology department. The student is confident by this semester and usually requires minimal supervision from the staff radiographers when performing general diagnostic procedures, critiquing radiographic images, and identifying obvious pathology. The student will observe, participate, and perform in many rotations including chest radiography, general radiography (outpatient & inpatient), gastrointestinal/genitourinary radiography, emergency/trauma radiography, portable radiography, and surgical radiography. The student may also observe and participate in advanced imaging modalities such as computed tomography, interventional radiography, magnetic resonance imaging, mammography, nuclear medicine, radiation therapy, and ultrasound. The students will choose two extended elective rotations from the aforementioned areas. Each rotation is four weeks in length and will provide students with advanced training and experience in their particular modality of interest.

The student will continue to refine skills in procedures for which they have previously demonstrated competency and will also continue to refine patient care skills. The student will continue working on required radiographic competencies. (351 clock hours)

Prerequisites: RT-106 Clinical Introduction & Clinical Education I, RT-206 Clinical Education II, RT-306 Clinical Education III, RT-406 Clinical Education IV

RT-606 Clinical Education VI

This course is sequentially linked to Clinical Education V and will continue to provide clinical rotations in various areas of the radiology department including chest radiography, general radiography (outpatient & inpatient), gastrointestinal/genitourinary radiography, emergency/trauma radiography, portable radiography, and surgical radiography. The student may also observe and participate in advanced imaging modalities such as computed tomography, interventional radiography, magnetic resonance imaging, mammography, nuclear medicine, radiation therapy, and ultrasound. These rotations will allow the students to complete level objectives in preparation for the American Registry of Radiologic Technologists examination. The student is confident by this semester and shall require minimal supervision from the staff radiographers when performing procedures for which he/she has demonstrated competency. The student has gained confidence in his/her ability to critique radiographic images including identifying common pathologic conditions. The student will also demonstrate excellent patient care and customer service skills. The student will continue working on required radiographic competencies to meet graduation requirements. The student will also be required to complete proficiency evaluations on all body parts. (95 clock hours)

Prerequisites: RT-106 Clinical Introduction & Clinical Education I, RT-206 Clinical Education II, RT-306 Clinical Education III, RT-406 Clinical Education IV, RT-506 Clinical Education V

RT-604 Cross Sectional Anatomy

Content begins with a review of gross anatomy of the head, neck, thorax, abdomen and pelvis. Detailed study of gross anatomical structures will be conducted systematically for location, relationship to other structures and function. Gross anatomical structures are located and identified in axial (transverse), sagittal, coronal and orthogonal (oblique) planes. Illustrations and anatomy images will be compared with MR and CT images in the same imaging planes and at the same level when applicable. The characteristic appearance of each anatomical structure as it appears on a CT and MR image will be stressed. (12.5 clock hours)

RT-607 Ethics and Modern Health Issues

Content provides a foundation in ethics and law related to the practice of medical imaging. An introduction to terminology, concepts and principles will be presented. Students will examine a variety of ethical and legal issues found in clinical practice. Patients' rights, professional responsibilities, life and death, euthanasia and the allocation of scarce medical resources are a few of the topics that will be covered. (18 clock hours)

RT-101 Medical Terminology

Content provides an introduction to the origins of medical terminology. A word-building system is introduced and abbreviations and symbols are discussed. This course is designed to enable the students

to analyze words structurally, to correlate an understanding of word elements with the basic anatomy, physiology and disease processes of the human body and to be continually aware of the commonly occurring spelling and pronunciation problems associated with medical terminology. Also introduced is an orientation to understanding radiographic orders and diagnostic report interpretation. (54 clock hours)

RT-102 Patient Care Standards

This course is designed to instruct the students in both the cognitive and affective domains. Students are taught to empathize with the patients in the hospital. The special needs of patients undergoing radiographic examinations are addressed. Topics such as body mechanics, medical emergency, asepsis, vital signs, monitoring and oxygen administration are covered. Surgical asepsis technique, catheterization and drug administration are addressed. Students are expected to participate in group discussion and role-play regarding the handling of patient issues. (72 clock hours)

RT-511 Pathology

Content introduces concepts related to disease and etiological considerations with emphasis on radiographic appearance of disease and impact on exposure factor selection. In a series of lectures, the important medical and surgical diseases will be explained with specific reference to abnormal anatomy, pathophysiology, diagnosis, treatment and prognosis. All major organ systems are covered. (30 clock hours)

Prerequisite: RT-408 Physiology

RT-103 Physics I

This course will provide the student with knowledge of basic physics. Concepts of Radiologic Science, The Structure of Matter, Electromagnetic Energy, Electricity, Magnetism and Electromagnetism are covered. (45 clock hours)

RT-203 Physics II

This course is a continuation of RT-103 Physics I. A detailed explanation of the x-ray imaging system x-ray tube, x-ray production, emission, and interaction with matter will be covered. (45 clock hours)

Prerequisite: RT-103 Physics I

RT-303 Physics III

This course provides information about the basic principles of Digital Radiography. Both cassette-based and cassette-less based systems are discussed. An understanding of image acquisition and extraction are also covered. The final process of transferring images to PACS will complete the course. (18 clock hours)

Prerequisite: RT-103 Physics I, RT-203 Physics II

RT-408 Physiology

This course examines how each of the human body systems function. Content establishes a knowledge base in anatomy and physiology. Components of the cells, tissues, organs and systems are described and discussed. The fundamentals of sectional anatomy relative to routine radiography are addressed. (37.5 clock hours)

RT-510 Quality Assurance and Computer Concepts

This course will familiarize the student with the process and concepts involved with quality assurance and quality control. The entire radiology department will be addressed and concepts such as equipment maintenance and repeat analysis will be covered. The course will also provide students with the fundamental principles of computer technology. Digital radiology concepts will be incorporated into the lessons. (30 clock hours)

Prerequisites: RT-105 Radiographic Technique I, RT-205 Radiographic Technique II, RT-305 Radiographic Technique III

RT-104 Radiographic Anatomy and Positioning I

This course uses lecture and laboratory demonstration to teach students the fundamentals of radiographic anatomy and positioning. Patient preparation, radiation protection, proper patient centering, room set-up and patient care standards are all incorporated. Students are taught to perform radiographic studies of the chest, abdomen, and extremities. (150 clock hours; Didactic hours = 90 hours, Laboratory hours = 60 hours)

RT-204 Radiographic Anatomy and Positioning II

This course, which is a continuation of RT-104, prepares students to perform radiographic studies of the spine, head, gastrointestinal and genitourinary systems. Contrast media is also introduced. Content provides the knowledge base necessary to perform standard imaging procedures and special studies. Consideration is given to the evaluation of optimal diagnostic images. The course uses lecture and laboratory demonstration to teach students the fundamentals of radiographic anatomy and positioning. Patient preparation, radiation protection, proper patient centering, room set-up and patient care standards are all incorporated. (150 clock hours; Didactic hours = 90 hours, Laboratory hours = 60 hours)

Prerequisites: RT-104 Radiographic Anatomy and Positioning I

RT- 304 Radiographic Anatomy and Positioning III

This course, which is a continuation of RT104 and RT204, prepares students to perform the special procedures performed in radiology. Arthrography, angiography, lymphangiography, bronchography, and myelography are some of the topics that are explored. Content provides the knowledge base necessary to perform standard imaging procedures and special studies. Consideration is given to the evaluation of optimal diagnostic images. The course uses lecture and laboratory demonstration to teach students the fundamentals of radiographic anatomy and positioning. Patient preparation, radiation protection, proper patient centering, room set-up and patient care standards are all incorporated. (18 clock hours)

Prerequisites: RT-104 Radiographic Anatomy and Positioning I, RT-204 radiographic Anatomy and Positioning II

RT-403 Radiation Protection

Content provides an overview of the principles of the interaction of radiation with living systems. Radiation effects on molecules, cells, tissues and the body as a whole are presented. Factors affecting biological response are presented, including acute and chronic effects of radiation. Content presents an overview of the principles of radiation protection, including the responsibilities of the radiographer for patients, personnel and the public. Radiation health and safety requirements of federal and state regulatory agencies, accreditation agencies and health care organizations are incorporated. This course is designed to acquaint the students with fundamentals of cellular biology and then to correlate those fundamentals with the introduction into radiation detection and measurement. Radiosensitivity, Target Theory, Cell Survival Rates, and the short and long-term effects of radiation, Linear Energy Transfer, Relative Biological Effects, Oxygen Enhancement Ratio are discussed as are maximum permissible dose, ALARA and occupational exposure. (48 clock hours)

RT-105 Radiographic Technique I

This course presents information related to the background history of x-ray, x-ray production and its properties. A general understanding of density, contrast, resolution, and distortion are developed. A brief overview of films and screens will be covered. mAs and reciprocity, inverse square law and factors that affect density will also be covered. (30 clock hours)

RT-205 Radiographic Technique II

This course is a continuation of RT-105 Radiographic Technique I. Topics from RT-105 I will be reiterated throughout the semester. An in-depth discussion of contrast, resolution and distortion will be examined. The relationship that exists between controlling factors and influencing factors for the radiographic qualities will be covered in depth. Grids, beam restriction and filtration will also be discussed in further detail. Exposure compensation, technique conversions and comparisons will be addressed. (30 clock hours)

Prerequisites: RT-105 Radiographic Technique I

RT-305 Radiographic Technique III

The course is a continuation of RT-105 Radiographic Technique I and RT-205 Radiographic Technique II. This course will provide students with knowledge of imaging equipment used in the radiology department. AEC, warm up procedures, mobile radiography, fluoroscopy and tomography will be topics covered. Various recording media and techniques are discussed. (12 clock hours)

Prerequisites: RT-105 Radiographic Technique I, RT-205 Radiographic Technique II

GRADUATION REQUIREMENTS

In order to graduate from the Program, students must successfully complete all academic, clinical and competency requirements and successfully pass the Junior and Senior Level Comprehensive Examinations. These Examinations are mock-registry type exams administered at the completion of the junior and senior years of training. Junior or Senior students who fail the respective examinations will be informed as provided for below*:

Students who do not pass the Junior and Senior Level Comprehensive Exams on the first attempt must meet the following requirements in order to proceed through the remainder of the Program to graduate:

*** Junior students who fail the exam will:**

1. Be informed of the failure, advised to study again and given the opportunity to retake the exam.
2. Be promoted to senior students if the second attempt is passed.
3. Be required to repeat the junior level courses in which they have been shown to be deficient according to the comprehensive examination and faculty recommendations and are subject to the \$500.00 tuition fee for each course that will be retaken.

*** Senior students who fail the exam will:**

1. Be informed of the failure, advised to study again and given the opportunity to retake the exam.
2. Be permitted to graduate if the second attempt is passed.
3. Be required to submit additional assignments and attend mandatory tutoring sessions as stipulated by the Program faculty.

Additionally, students must meet all time requirements (refer to page 56) and financial obligations (refer to page 64) in order to graduate the Program. Students must also possess a college degree of an AS or higher degree in the related field of Radiologic Sciences from a regionally accredited college prior to graduation from the Program. To fulfill the Program's degree requirement, students must possess a degree in the related field of Radiologic Sciences. If a student does not already possess the required degree upon acceptance to the Program, the student must also meet all graduation requirements set forth by the degree granting institution.

Program College Degree Requirement

To fulfill the Program's degree requirement, students must possess a college degree of an Associate of Science or higher degree in the related field of Radiologic Sciences. If a student does not already possess the required degree upon acceptance to the Program, the student must also meet all graduation requirements set forth by the degree granting institution.

In order to meet the Program's college degree requirement students must meet one of the following requirements prior to graduation:

- Provide evidence of an AS or higher degree in the related field of Radiologic Science from a regionally accredited college;

- Provide evidence of enrollment and in a 2+2 medical imaging program at a regionally accredited college that grants a degree upon completion of the Einstein Medical Center School of Radiologic Technology program; or
- Successfully complete all associate degree requirements set forth by Jefferson Philadelphia University + Thomas Jefferson University. Students completing the Associate of Science Degree in Health and Human Sciences: Radiologic Technology program, at Jefferson must complete a minimum of 21 credits of Jefferson coursework which includes: MATH 215-College Algebra, PSYCH 101- Introduction to Psychology, WRTG 105-Writing for the Workplace Culture*, IT 201-Learning with Technology*, HIST 114-Rise of the Modern World: American Transitions*, HUM 301-Art in Context* and PLA 100-Scientific Reasoning*.

*** WRTG 105-Writing for the Workplace Culture, IT 201-Learning with Technology, HIST 114-Rise of the Modern World: American Transitions, HUM 301-Art in Context and PLA 100-Scientific Reasoning must be taken at Jefferson.**

GRADUATION AWARDS

Awards available upon graduation to selected students include:

1. Outstanding Clinical Skills
2. Highest Grade Point Average
3. Best All Around Student
4. Excellence in Interventional Radiography
5. Outstanding Patient Care Skills
6. Excellence in Radiologic Sciences
7. Outstanding Junior Student

SECTION III: DIDACTIC EDUCATION POLICIES

DIDACTIC COURSE GRADING AND POLICY DIDACTIC GRADING SCALE

A – 94 to 100

B – 86 to 93.9

C – 79 to 85.9

D – 75 to 78.9

F – 0 to 75

DIDACTIC COURSE FAILURE

Every student must achieve a didactic grade of at least 75 in each course in order to pass any didactic course.

Students who fail to meet didactic performance standards (75 minimum passing grade) for any course, will be given ten (10) business days, to remediate their studies. The student will be required to take a remediated cumulative final examination, in the course, on the tenth (10th) business day. In the event the remediated cumulative final examination cannot be scheduled for the tenth (10th) day, due extenuating circumstances, the Program will provide an accommodation. The score from this remediated cumulative final examination (“Remediated Score”) will replace the previously achieved final examination score. The course grade will be recalculated utilizing the Remediated Score (“Remediated Course Grade”). If the Remediated Course Grade meets the minimum passing grade of 75 or higher, the student may remain in the program and the Remediated Course Grade will be documented on the official transcript. If the Remediated Course Grade achieved does not meet the minimum passing grade of 75 or higher, dismissal from the Program will result.

Students are allowed only one didactic course failure during their time in the program.

Should a student fail a second course at any time in the Program he/she will be dismissed from the Program. Any student dismissed from the Program, for a didactic course failure, has the right to appeal by initiating the Dismissal Appeals policy (refer to page 53).

DIDACTIC DISMISSAL

A student who does not complete a didactic course, with a 75 minimum passing grade and does not successfully remediate their studies (demonstrated by a passing Remediated Course Grade of a 75 or higher) will be dismissed from the Program. Failure to take the remediated cumulative final exam on the tenth (10th) business day will result in dismissal from the Program. In the event the remediated cumulative final examination cannot be scheduled for the tenth (10th) day, due extenuating circumstances, the Program will provide an accommodation.

Any student who fails a second course at any time in the Program will be dismissed from the Program. Any student dismissed from the Program, for a didactic course failure, has the right to appeal by initiating the Dismissal Appeals policy (refer to page 53).

CLASS ATTENDANCE

Students are expected to be present and punctual for all class meetings. If an unexpected illness occurs, it is the student's responsibility to notify the Program instructor of the absence prior to the scheduled class time. It is also the student's responsibility to obtain all missed coursework and assignments. Students who are absent on a scheduled class day will be charged with one (1) personal day.

ACADEMIC PROGRESS

The Program faculty periodically reviews student's grades and progress. During mid semester, students receive a progress report. This informs the students of his or her progress. Students who are failing at the mid-point of the semester will receive written notification of such, via the progress report, by the Director of the Program. If a student is below the required 75% for any didactic course, an action plan is discussed with the student to address the issues and suggestions for improvement. A reminder is also provided to each student regarding where they stand in the clinical portion of education. At the completion of each semester, students receive a copy of their didactic and clinical record, which is reviewed and discussed with Program faculty.

TRANSCRIPTS

Following each semester, students are provided with copies of their transcripts. The transcripts include course grades and clinical grades. Final, official transcripts, which are issued on graduation day, include cumulative grade point averages and class rank in addition to the above mentioned components.

SECTION IV: CLINICAL EDUCATION POLICIES

CLINICAL EDUCATION GRADING AND POLICY CLINICAL EDUCATION GRADING SCALE

- A – 97 to 100
- B – 93 to 96.9
- C – 89 to 92.9
- D – 85 to 88.9
- F – 0 to 84.9

CLINICAL EDUCATION COURSE FAILURE

Students who fail a clinical education course will be dismissed from the program. Any student dismissed from the Program, for a clinical education course failure, has the right to appeal by initiating the Dismissal Appeals policy (refer to page 53).

CLINICAL EDUCATION ASSIGNMENTS

During the 23-month program, students in the AEMC School of Radiologic Technology will rotate through the following clinical assignments:

Chest Radiography	Magnetic Resonance Imaging
Cardiac Catheterization Lab	Nuclear Medicine
Computed Tomography	Outpatient Radiography
Emergency Radiography	Portable Radiography
Fluoroscopy	Radiation Therapy
General Radiography	Ultrasonography
Interventional Radiography	*Mammography is elective

Students will also rotate through the following off-site clinical locations:

Einstein Center One	9880 Bustleton Ave.	Philadelphia, PA
EHN Collegeville	100 Market St.	Collegeville, PA
EHN Holmesburg	8015 Frankford Ave.	Philadelphia, PA
EHN King of Prussia	210 Mall Blvd.	King of Prussia, PA
Einstein Medical Center Elkins Park	60 Township Line Rd.	Elkins Park, PA
Einstein Medical Center Montgomery	559 West Germantown Pike	East Norriton, PA

CLINICAL EDUCATION SUPERVISION

This policy serves to identify the current guidelines for clinical supervision of student radiographers in reference to the direct and indirect provisions stated in the JRCERT's Standards for an Accredited Educational Program in Radiologic Sciences.

DIRECT SUPERVISION

All students are required to perform radiographic imaging procedures under direct supervision until they have achieved and documented successful completion of a core competency and a qualifying exam for a particular exam category.

The parameters of direct supervision are:

1. A qualified radiographer (ARRT registered in Radiography) reviews the procedure in relation to the student's achievement.
2. A qualified radiographer evaluates the condition of the patient in relation to the student's knowledge.
3. A qualified radiographer is physically present during the conduct of the procedure to offer advice and assist the student radiographer if needed.
4. A qualified radiographer reviews and approves all images.
5. A qualified radiographer is present during the repeat of an unsatisfactory image (direct supervision).

The parameters of direct supervision when repeating unsatisfactory images are:

1. A qualified radiographer is present during the repeat of an unsatisfactory image to assure patient safety and proper education practice.
2. A qualified radiographer must be physically present during the conduct of a repeat image and must approve the student's procedure prior to re-exposure.

INDIRECT SUPERVISION

After achieving and documenting successful completion of a core competency and a qualifying examination for a particular exam category, the student may perform those imaging procedures under indirect supervision.

Indirect supervision is defined as supervision provided by a qualified radiographer immediately available to assist students regardless of the level of student achievement.

Immediately available is interpreted as the physical 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 on patients.

The parameters of indirect supervision are:

1. A qualified radiographer reviews the student's ability to perform under indirect supervision.
2. The student evaluates the request for procedure and the patient's condition and consults with a qualified radiographer, if necessary.
3. The student performs the radiographic imaging procedure under indirect supervision.
4. A qualified radiographer reviews and approves all radiographic images.
5. A qualified radiographer is present during the repeat of an unsatisfactory image (direct supervision).

CLINICAL EDUCATION RULES OF CONDUCT

While on clinical assignment, students shall observe the following Clinical Education Rules of Conduct:

1. Students are to remain in their assigned areas at all times. Students who must leave their clinical assignments for lunch, the rest room or class must inform the staff technologist they are working with before they leave the area. Any student not found in their clinical area will be given an infraction notice and points will be deducted from their clinical grade.
2. Students **MAY NOT** change their clinical assignments. Only program faculty may change the clinical schedule.
3. Students are expected to be on the clinical floor from 8:00 AM to 4:00 PM, *depending upon the normal working hours of the clinical assignment*. Students **must** take one hour for lunch each day. The lunch hour may not be used to accrue or make up time or to allow the student to leave earlier for the day.
4. Students are expected to treat all patients, hospital employees and fellow students with respect. Staff and Resident Radiologists are to be addressed as Doctor followed by his/her last name.
5. Students are not to congregate in the halls, control areas, or processing areas.
6. Students may not eat, drink or chew gum in the patient holding areas, hallways or radiographic rooms or any other working areas.
7. Einstein Healthcare Network is a “smoke and tobacco free” environment. Smoking and the use of tobacco products are prohibited on any property, inside and outside of all owned or leased buildings, grounds, parking lots and decks, vehicles and sidewalks.
8. Students who become ill or injured while on clinical duty are to report immediately to the program faculty or floor supervisors for further instruction.
9. Students must carry markers and positioning handbooks at all times.
10. Students may not use the hospital phones. Personal calls should be placed during the lunch hour on the hospital pay phones. If an emergency arises the phone in the school office may be used. Cell phones are not permitted in the clinical areas.
11. When there are no patients waiting to be radiographed, students may and are encouraged to practice positioning skills.
12. Students must abide by the school’s dress code at all times.
13. Students must clock in and clock out for the day in their assigned clinical rotation. Students must not handle the time records of another student or employee.
14. Students are expected to follow the hospital policy on Standard Precautions.

**FAILURE TO ABIDE BY THESE RULES WILL RESULT IN DISCIPLINARY ACTION.
AN INFRACTION NOTICE WILL BE GIVEN FOR EACH OCCURANCE.**

Infraction Notice: Given for infraction of rules set forth by the Program Office. These notices will be put against your clinical grade each semester. Each infraction notice will result in the loss of one (1) point from your clinical grade. At the beginning of each new semester, all prior infractions will be removed from the student's file.

CLINICAL EDUCATION DRESS CODE

While on clinical assignment, students are expected to:

1. Present a well-groomed, clean, and professional appearance at all times.
2. Wear the approved student uniform at all times while on the clinical floor. The uniforms should be properly fitting and laundered at all times.
3. Wear their hospital ID's and radiation monitors at all times. The ID must be visible at all times and the radiation monitor should be worn at the collar level.
4. Wear make-up and nail polish conservatively. Only light shades may be worn and nails should be conservative in length. No forms of artificial nails are permitted.
5. Wear corrective eyewear as needed. No sunglasses are permitted on the clinical floor.
6. Keep jewelry to a minimum. Only small, post earrings, wedding bands and watches may be worn. Several post earrings on each lobe are not permitted. No facial jewelry is permitted. This is for your own safety.
7. Tattoos must be discreet, non-offensive and covered by the uniform when possible.
8. Wear socks or stockings at all times. No bold prints or colors are allowed.
9. Shoes and sneakers must be kept clean and polished at all times. Wear predominately white leather sneakers or plain, solid color nursing shoes (i.e. black, navy, brown or white).
10. Keep all hair, beards and mustaches neatly trimmed. Long hair **must be** tied back.
11. Wear solid white or charcoal gray **short** lab jackets for warmth. Students may wear solid white, black or gray t-shirts or turtlenecks under the hospital scrubs. No other shirts are permitted. No other sweaters or cover-ups are acceptable unless prior approval is provided by the Program Director.
12. Only wear ceil blue scrubs while working in the operating room. Ceil blue scrubs are never to be worn outside of the hospital premises. Students assigned to the above mentioned area are to go to and from the hospital in their school uniforms.

Students who do not follow the school's dress code will be given an infraction notice.

CLINICAL COMPETENCY EVALUATION POLICY

The Clinical Competency Evaluation (CCE) is a mechanism utilized for evaluation of the Student Radiographer's progress on a given routine exam. Clinical Competencies may be performed by any Registered Radiologic Technologist [RT(R)] who is listed as a Clinical Advisor or Clinical Instructor for the Program.

After a student has successfully completed a Simulation test on a routine exam, and feels they are competent in performing the particular exam under direct supervision, the student may request to be tested by a Clinical Advisor or Clinical Instructor or faculty via a Clinical Competency Evaluation.

Prior to the start of the procedure, the student must indicate that the study being performed is for a Clinical Competency and present the technologist with a Clinical Competency Evaluation via the E*Value. Once the procedure is begun, the student must complete the exam and will be graded on that exam regardless of their performance. Students are not permitted to discontinue an exam once they have begun. Upon completion of the exam, the evaluator should fill out the form and submit it via E*Value in a timely manner.

Prior to the start of the exam, the evaluator must check the student's clinical book to assure that the student has successfully completed the simulation that corresponds with the exam. If the student has not yet completed the simulation, the evaluator will not permit the student to proceed.

Clinical Competency Evaluations (CCE) are evaluated on a percentage basis. Students must score an 85% or higher to successfully complete each CCE. The successful completion of a Clinical Competency, with an 85% or better, indicates the student is permitted to complete that particular, routine exam under indirect supervision. If a student does not achieve an 85% or higher on a CCE, the failing grade will be documented in the clinical education grade book. Program faculty will discuss the results of the CCE with the student and assist in remediation. Prior to completion of the program, the student must repeat any CCE procedure that results in a score of less than 85%, in order to demonstrate and achieve competency in the procedure. The cumulative average of all CCE's carries a weighted average of 25% of the clinical semester grade.

CLINICAL COMPETENCY EVALUATION

NAME _____ DATE _____

EVALUATOR _____ EXAM _____

Please rate the student's performance in each of the following areas according to the scale below. Please be sure to evaluate each view separately.

- 5 - Excellent
- 4 - Good
- 3 - Average
- 2 - Fair
- 1 - Poor

PATIENT CARE

- 1. Intro to patient _____
- 2. Patient/Student Communication _____
- 3. Provided courteous care _____
- 4. Document on patient's medical record _____
- 5. Care of equipment on patient (IV, catheter, oxygen) _____
- 6. Ability to problem solve (Difficult patient/scenario) _____

PART/IR ALIGNMENT

	VIEW 1	VIEW 2	VIEW 3	VIEW 4
	Projection	Projection	Projection	Projection
7. Correct IR size	_____	_____	_____	_____
8. Orientation to anatomy	_____	_____	_____	_____
9. Centering to IR	_____	_____	_____	_____

POSITIONING

- 10. Patient position _____
- 11. Part Position (rotation, OID, etc) _____
- 12. Immobilization (patient instruction) _____
- 13. Anatomical markers _____

TUBE/PART/IR ALIGNMENT	VIEW 1	VIEW 2	VIEW 3	VIEW 4
	Projection	Projection	Projection	Projection

14. CR to IR and part	_____	_____	_____	_____
15. SID/Angulation	_____	_____	_____	_____
16. Collimation and use of lead strips	_____	_____	_____	_____

TECHNICAL FACTORS

17. Control panel set	_____	_____	_____	_____
18. Patient measurement	_____	_____	_____	_____

RADIATION PROTECTION

19. Use of shielding	_____	_____	_____	_____
----------------------	-------	-------	-------	-------

IMAGE EVALUATION

20. Position identification	_____	_____	_____	_____
21. Anatomy	_____	_____	_____	_____
22. Positioning	_____	_____	_____	_____
23. QAing the exam (PACS)	_____	_____	_____	_____
24. Critical Thinking Skills	_____	_____	_____	_____

DID THE STUDENT NEED TO REPEAT ANY IMAGES? _____ YES _____ NO

IF SO, DID THEY DO THE REPEATS UNDER THE DIRECT SUPERVISION OF A QUALIFIED RADIOGRAPHER?

_____ YES _____ NO

FORM GRADING:

ADD TOTAL POINTS: _____

1 VIEW DIVIDE BY 24
 2 VIEWS DIVIDE BY 42
 3 VIEWS DIVIDE BY 60
 4 VIEWS DIVIDE BY 78 _____ =

EVALUATOR SIGNATURE AND COMMENTS:

STUDENT SIGNATURE AND COMMENTS:

CLINICAL COMPETENCY EVALUATION CRITERIA

PATIENT CARE

1. Student must properly identify the patient, including verifying two forms of patient ID, identify themselves and verify LMP for female patients.
2. Student must demonstrate good communication with the patient. Student must obtain thorough history from patient, reason for procedure and verify area of interest.
3. Student must be respectful to the patient including a thorough explanation the procedure, and assist the patient to and from the exam table.
4. Student must be able to determine the correct examination and projections to be performed. Student must properly document any pertinent information related to history, LMP, pregnancy, use of shielding, time and date of the exam and the technologist assisting with exam.
5. Student must be able to properly care for and maintain any equipment associated with the patient (i.e. IV, catheter, monitor, etc.).
6. Student must be able to adapt to exam/ patient variables.

PART/IR ALIGNMENT

7. Student must select the proper IR size for the projection.
8. Student must properly align IR placement to the anatomy of interest.
9. Student must correctly center the IR and the CR.

POSITIONING

10. Student must utilize and place the patient in the correct radiographic positions.
11. Student must utilize and place the body part in the correct radiographic positions.
12. Student must utilize proper immobilization devices and/or breathing instructions.
13. Student must utilize appropriate markers on image prior to processing. Student must correctly orient anatomical markers prior to processing.

TUBE/PART/IR ALIGNMENT

14. Student must be able to correctly align the CR to the body part and IR.
15. Student must employ appropriate SID and CR angulation if necessary for specific projections.
16. The student must utilize proper and adequate collimation prior to image exposure. Student must properly utilize lead strips/barriers when appropriate to decrease scatter radiation for specific projections.

TECHNICAL FACTORS

17. Student must set the correct exposure factors.
18. Student must know how to utilize calipers and properly measure a patient if applicable or necessary for body part of interest.

RADIATION PROTECTION

19. Student must gonadally shield every patient, regardless of age, as appropriate to imaging area of interest.

IMAGE EVALUATION

20. Student must be able to identify all radiographic positions on the images processed.
21. Student must be able to name and identify anatomy of interest for each projection.
22. Each projection must be properly positioned. Each image must be aligned and centered correctly.

23. The radiograph must demonstrate the proper brightness, contrast, and spatial resolution. Student must know how to evaluate the image and deem it acceptable or unacceptable before sending to PACS.
24. Student must be able to adapt to uncontrollable variables and create solutions to achieve projection(s).

CLINICAL PROFICIENCY EVALUATION POLICY

The Clinical Proficiency Evaluation (Prof) is a mechanism utilized for evaluation of the Student Radiographer's progress on a given routine exam. Clinical Proficiencies may be performed by any Registered Radiologic Technologist [RT(R)] who is listed as a Clinical Advisor or Clinical Instructor for the Program.

During the second year of training, after a student has successfully completed a Clinical Competency Evaluation on a routine exam and has worked under indirect supervision performing this particular exam, the student may request to be tested by a Clinical Advisor or Clinical Instructor or faculty via a Clinical Proficiency Evaluation.

Prior to the start of the procedure, the student must indicate that the study being performed is for a Clinical Proficiency and present the technologist with a Clinical Proficiency Evaluation via the E*Value. Once the procedure is begun, the student must complete the exam and will be graded on that exam regardless of their performance. Students are not permitted to discontinue an exam once they have begun. Upon completion of the exam, the evaluator should fill out the form and submit it via E*Value in a timely manner.

Prior to the start of the exam, the evaluator must check the student's clinical book to assure that the student has successfully completed a Clinical Competency that corresponds with the exam. If the student has not yet completed the CCE, the evaluator will not permit the student to proceed with the Prof, but may evaluate the exam with a Clinical Competency Evaluation.

Clinical Proficiency evaluations (Prof) are evaluated on a percentage basis. Students must score an 85% or higher to successfully complete each Prof. If a student does not achieve an 85% or higher on a Prof, the failing grade will be documented in the clinical education grade book. Program faculty will discuss the results of the Prof with the student and assist in remediation. The cumulative average of all Prof's and remaining Clinical Competency Evaluations carry a weighted average of 40% of the Senior year clinical semester grade.

CLINICAL PROFICIENCY EVALUATION

NAME _____ DATE _____

EVALUATOR _____ EXAM _____

Please rate the student's performance in each of the following areas according to the scale below. Please be sure to evaluate each view separately.

- 5 - Excellent
- 4 - Good
- 3 - Average
- 2 - Fair
- 1 - Poor

PATIENT CARE

- 1. Intro to patient _____
- 2. Patient/Student Communication _____
- 3. Provided courteous care _____
- 4. Document on patient's medical record _____
- 5. Care of equipment on patient (IV, catheter, oxygen) _____
- 6. Ability to problem solve (Difficult patient/scenario) _____

PART/IR ALIGNMENT

	VIEW 1	VIEW 2	VIEW 3	VIEW 4
	Projection	Projection	Projection	Projection
7. Correct IR size	_____	_____	_____	_____
8. Orientation to anatomy	_____	_____	_____	_____
9. Centering to IR	_____	_____	_____	_____

POSITIONING

10. Patient position	_____	_____	_____	_____
11. Part Position (rotation, OID, etc)	_____	_____	_____	_____
12. Immobilization (patient instruction)	_____	_____	_____	_____
13. Anatomical markers	_____	_____	_____	_____

TUBE/PART/IR ALIGNMENT	VIEW 1	VIEW 2	VIEW 3	VIEW 4
	Projection	Projection	Projection	Projection

14. CR to IR and part	_____	_____	_____	_____
15. SID/Angulation	_____	_____	_____	_____
16. Collimation and use of lead strips	_____	_____	_____	_____

TECHNICAL FACTORS

17. Control panel set	_____	_____	_____	_____
18. Patient measurement	_____	_____	_____	_____

RADIATION PROTECTION

19. Use of shielding	_____	_____	_____	_____
----------------------	-------	-------	-------	-------

IMAGE EVALUATION

20. Position identification	_____	_____	_____	_____
21. Anatomy	_____	_____	_____	_____
22. Positioning	_____	_____	_____	_____
23. QAing the exam (PACS)	_____	_____	_____	_____
24. Critical Thinking Skills	_____	_____	_____	_____

DID THE STUDENT NEED TO REPEAT ANY IMAGES? _____ YES _____ NO

IF SO, DID THEY DO THE REPEATS UNDER THE DIRECT SUPERVISION OF A QUALIFIED RADIOGRAPHER?

_____ YES _____ NO

FORM GRADING:

ADD TOTAL POINTS: _____

1 VIEW DIVIDE BY 24
 2 VIEWS DIVIDE BY 42
 3 VIEWS DIVIDE BY 60
 4 VIEWS DIVIDE BY 78 _____ =

EVALUATOR SIGNATURE AND COMMENTS:

STUDENT SIGNATURE AND COMMENTS:

CLINICAL PROFICIENCY EVALUATION CRITERIA

PATIENT CARE

1. Student must properly identify the patient, including verifying two forms of patient ID, identify themselves and verify LMP for female patients.
2. Student must demonstrate good communication with the patient. Student must obtain thorough history from patient, reason for procedure and verify area of interest.
3. Student must be respectful to the patient including a thorough explanation the procedure, and assist the patient to and from the exam table.
4. Student must be able to determine the correct examination and projections to be performed. Student must properly document any pertinent information related to history, LMP, pregnancy, use of shielding, time and date of the exam and the technologist assisting with exam.
5. Student must be able to properly care for and maintain any equipment associated with the patient (i.e. IV, catheter, monitor, etc.).
6. Student must be able to adapt to exam/ patient variables.

PART/IR ALIGNMENT

7. Student must select the proper IR size for the projection.
8. Student must properly align IR placement to the anatomy of interest.
9. Student must correctly center the IR and the CR.

POSITIONING

10. Student must utilize and place the patient in the correct radiographic positions.
11. Student must utilize and place the body part in the correct radiographic positions.
12. Student must utilize proper immobilization devices and/or breathing instructions.
13. Student must utilize appropriate markers on image prior to processing. Student must correctly orient anatomical markers prior to processing.

TUBE/PART/IR ALIGNMENT

14. Student must be able to correctly align the CR to the body part and IR.
15. Student must employ appropriate SID and CR angulation if necessary for specific projections.
16. The student must utilize proper and adequate collimation prior to image exposure. Student must properly utilize lead strips/barriers when appropriate to decrease scatter radiation for specific projections.

TECHNICAL FACTORS

17. Student must set the correct exposure factors.
18. Student must know how to utilize calipers and properly measure a patient if applicable or necessary for body part of interest.

RADIATION PROTECTION

19. Student must gonadally shield every patient, regardless of age, as appropriate to imaging area of interest.

IMAGE EVALUATION

20. Student must be able to identify all radiographic positions on the images processed.
21. Student must be able to name and identify anatomy of interest for each projection.
22. Each projection must be properly positioned. Each image must be aligned and centered correctly.

23. The radiograph must demonstrate the proper brightness, contrast, and spatial resolution. Student must know how to evaluate the image and deem it acceptable or unacceptable before sending to PACS.
24. Student must be able to adapt to uncontrollable variables and create solutions to achieve projection(s).

LABORATORY SIMULATION EVALUATION

Student Name _____ Date _____

Procedure _____

Student Performance Scoring Scale: 1 2 3 4 5 N/A
 Unacceptable-----Acceptable-----Exceptional

Pre-Procedure/Exam Room Preparation (2.5%)

- | | | | | | | |
|---|---|---|---|---|---|-----|
| 1. Examines the radiographic room and cleans/straightens it before escorting the patient in. | 1 | 2 | 3 | 4 | 5 | N/A |
| 2. Is able to manipulate all radiographic equipment with ease. | 1 | 2 | 3 | 4 | 5 | N/A |
| 3. Has all necessary equipment & supplies readily available, including up-to-date black book. | 1 | 2 | 3 | 4 | 5 | N/A |

Patient Preparation (7.5%)

- | | | | | | | |
|---|---|---|---|---|---|-----|
| 4. Properly identifies the patient while establishing a good rapport with him or her. Asks female patients of childbearing age the date of their last menstrual period; inquires about the possibility of pregnancy, when applicable. | 1 | 2 | 3 | 4 | 5 | N/A |
| 5. Asks the patient to remove all obscuring objects (snaps, zippers, jewelry, etc.) to avoid radiographic artifacts. | 1 | 2 | 3 | 4 | 5 | N/A |
| 6. Explains the examination in terms the patient fully understands. | 1 | 2 | 3 | 4 | 5 | N/A |
| 7. Performs proper hand hygiene in front of patient. | 1 | 2 | 3 | 4 | 5 | N/A |

Procedural Performance (90%)

- | | | | | | | |
|--|---|---|---|---|---|-----|
| 8. Sets the proper technical factors. | | | | | | |
| Projection 1 _____ | 1 | 2 | 3 | 4 | 5 | N/A |
| Projection 2 _____ | 1 | 2 | 3 | 4 | 5 | N/A |
| Projection 3 _____ | 1 | 2 | 3 | 4 | 5 | N/A |
| Projection 4 _____ | 1 | 2 | 3 | 4 | 5 | N/A |
| 9. Selects the appropriate IR size and orientation. | | | | | | |
| Projection 1 _____ | 1 | 2 | 3 | 4 | 5 | N/A |
| Projection 2 _____ | 1 | 2 | 3 | 4 | 5 | N/A |
| Projection 3 _____ | 1 | 2 | 3 | 4 | 5 | N/A |
| Projection 4 _____ | 1 | 2 | 3 | 4 | 5 | N/A |
| 10. Adjusts the tube to the proper SID. | | | | | | |
| Projection 1 _____ | 1 | 2 | 3 | 4 | 5 | N/A |
| Projection 2 _____ | 1 | 2 | 3 | 4 | 5 | N/A |
| Projection 3 _____ | 1 | 2 | 3 | 4 | 5 | N/A |
| Projection 4 _____ | 1 | 2 | 3 | 4 | 5 | N/A |
| 11. Accurately positions the patient without tilt or rotation. | | | | | | |
| Projection 1 _____ | 1 | 2 | 3 | 4 | 5 | N/A |
| Projection 2 _____ | 1 | 2 | 3 | 4 | 5 | N/A |
| Projection 3 _____ | 1 | 2 | 3 | 4 | 5 | N/A |
| Projection 4 _____ | 1 | 2 | 3 | 4 | 5 | N/A |
| 12. Applies accurate CR angulation, when applicable. | | | | | | |
| Projection 1 _____ | 1 | 2 | 3 | 4 | 5 | N/A |
| Projection 2 _____ | 1 | 2 | 3 | 4 | 5 | N/A |
| Projection 3 _____ | 1 | 2 | 3 | 4 | 5 | N/A |
| Projection 4 _____ | 1 | 2 | 3 | 4 | 5 | N/A |
| 13. Properly aligns the CR, part, & IR | | | | | | |
| Projection 1 _____ | 1 | 2 | 3 | 4 | 5 | N/A |
| Projection 2 _____ | 1 | 2 | 3 | 4 | 5 | N/A |
| Projection 3 _____ | 1 | 2 | 3 | 4 | 5 | N/A |
| Projection 4 _____ | 1 | 2 | 3 | 4 | 5 | N/A |
| 14. Applies proper collimation and makes adjustments as necessary. | | | | | | |
| Projection 1 _____ | 1 | 2 | 3 | 4 | 5 | N/A |
| Projection 2 _____ | 1 | 2 | 3 | 4 | 5 | N/A |
| Projection 3 _____ | 1 | 2 | 3 | 4 | 5 | N/A |
| Projection 4 _____ | 1 | 2 | 3 | 4 | 5 | N/A |

15. Places correct lead marker in the appropriate area of the Bucky/IR in the proper position.
- Projection 1 _____ 1 2 3 4 5 N/A
 Projection 2 _____ 1 2 3 4 5 N/A
 Projection 3 _____ 1 2 3 4 5 N/A
 Projection 4 _____ 1 2 3 4 5 N/A
16. Provides radiation protection for the patient (shield), self (distance), and others (closes doors).
- Projection 1 _____ 1 2 3 4 5 N/A
 Projection 2 _____ 1 2 3 4 5 N/A
 Projection 3 _____ 1 2 3 4 5 N/A
 Projection 4 _____ 1 2 3 4 5 N/A
17. Makes the exposure after telling the patient to hold still and providing the patient with the proper breathing instructions.
- Projection 1 _____ 1 2 3 4 5 N/A
 Projection 2 _____ 1 2 3 4 5 N/A
 Projection 3 _____ 1 2 3 4 5 N/A
 Projection 4 _____ 1 2 3 4 5 N/A
18. Instills confidence in the patient by exhibiting self-confidence throughout the exam. 1 2 3 4 5 N/A
19. Properly communicates with the patient throughout the examination; respects the patient's modesty & provides ample comfort to him or her. 1 2 3 4 5 N/A
20. Completes the exam within a reasonable time frame. 1 2 3 4 5 N/A

Repeatable Errors (25 points deducted if procedural performance would result in an unacceptable image)

Projection 1 _____	Repeatable Error?	Yes	No
Projection 2 _____	Repeatable Error?	Yes	No
Projection 3 _____	Repeatable Error?	Yes	No
Projection 4 _____	Repeatable Error?	Yes	No

Comments:

Faculty Signature _____ Date _____

Student Signature _____ Date _____

	Points Earned/Possible Points	Section Score	Weighting Factor
Exam Room Preparation	/15		X .025 =
Patient Preparation	/20		X .075 =
Procedural Performance	/65 (1 projection)		X .90 =
	/115 (2 projections)		
	/165 (3 projections)		
	/215 (4 projections)		
Repeatable Errors	Yes (1) No (0)	X -25 points	-
*Final Score			

**Final simulation scores of less than 75 will require the repeating of the unacceptable projection. A score of 75 or greater is required prior to any competency performance of the exam.*

LABORATORY FINAL SIMULATION

NAME _____ DATE _____

EVALUATOR _____ EXAM 1. _____

2. _____

Please rate the student's performance in each of the following areas according to the scale below. Please be sure to evaluate each view separately.

- 5 - Excellent
- 4 - Good
- 3 - Average
- 2 - Fair
- 1 - Poor

	EXAM 1	EXAM 2
EXAM PREP		
Intro to patient, dressing instructions	_____	_____
LMP	_____	_____
Proper Routine (must state full routine)	_____	_____
Pt. communication throughout exam	_____	_____
EQUIPMENT/TECHNICAL FACTORS		
Utilized correct markers	_____	_____
Selected proper technique before exam	_____	_____
Demonstrated skills with equipment	_____	_____
TUBE/IR ALIGNMENT		
Selected proper IR size	_____	_____
Correct orientation of IR	_____	_____
SID	_____	_____
CR to IR	_____	_____
Centering to part	_____	_____
CR angulation	_____	_____

	EXAM 1	EXAM 2
POSITIONING		
Patient positioning	_____	_____
Part positioning	_____	_____
Immobilization	_____	_____
RADIATION PROTECTION		
Collimation/lead strips	_____	_____
Use of shielding	_____	_____
DISPLAYED CONFIDENCE THROUGHOUT STUDY	_____	_____
TOTAL SCORE (TOTAL POINTS/38)	_____	_____

EVALUATOR SIGNATURE AND COMMENTS:

STUDENTS SIGNATURE AND COMMENTS:

IMPROMPTU SIMULATION EVALUATION

NAME _____ DATE _____

EVALUATOR _____ EXAM _____

Please rate the student's performance in each of the following areas according to the scale below. Please be sure to evaluate each view separately.

- 5 - Excellent
- 4 - Good
- 3 - Average
- 2 - Fair
- 1 - Poor

YES (5) or NO (0)

STUDENTS PREP

Knowledge of positions to be performed _____

Markers _____

Black Book _____

EXAM PREP

Intro to patient, patient ID, dressing instructions _____

LMP _____

Pt. communication throughout exam _____

VIEW 1 VIEW 2 VIEW 3 VIEW 4

EQUIPMENT/TECHNICAL FACTORS

Projection Projection Projection Projection

Utilized markers properly _____

Selected proper technique before exam _____

Demonstrated skills with equipment, including SID _____

TUBE/PART/IR ALIGNMENT

Utilized and selected proper IR size _____

CR to IR _____

CR angulation and centering _____

	VIEW 1	VIEW 2	VIEW 3	VIEW 4
POSITIONING	Projection	Projection	Projection	Projection
Patient position	_____	_____	_____	_____
Part position	_____	_____	_____	_____
Immobilization	_____	_____	_____	_____
Measured correctly	_____	_____	_____	_____
RADIATION PROTECTION				
Collimation/lead strips	_____	_____	_____	_____
Use of shielding	_____	_____	_____	_____
THE STUDENT				
Completed exam within acceptable time frame	_____	_____	_____	_____
Appeared professional	_____	_____	_____	_____
Demonstrated confidence	_____	_____	_____	_____
FORM GRADING				
ADD TOTAL POINTS	_____			
1 VIEW DIVIDE BY 21				
2 VIEW DIVIDE BY 36				
3 VIEW DIVIDE BY 51				
4 VIEW DIVIDE BY 66				
	_____ = _____			

EVALUATOR SIGNATURE AND COMMENTS:

STUDENTS SIGNATURE AND COMMENTS:

CLINICAL PROGRESS SELF EVALUATION FORM

NAME _____

DATE _____

CLINICAL SEMESTER # _____

Please use the rating scale below to rate your ability in each of the following areas.

- 5-EXCELLENT
- 4-GOOD
- 3-AVERAGE
- 2-FAIR
- 1-POOR

- 1. COMMUNICATION SKILLS _____
- 2. MOTIVATION LEVEL _____
- 3. SELF-CONFIDENCE _____
- 4. PROBLEM SOLVING ABILITY _____
- 5. ADAPTABILITY _____
- 6. KNOWLEDGE LEVEL _____
- 7. APPLICATION OF KNOWLEDGE _____
- 8. CRITICAL THINKING SKILLS _____
- 9. DEPENDABILITY _____
- 10. COOPERATION _____
- 11. GENERAL ATTITUDE _____
- 12. OVERALL PROFESSIONAL ABILITY _____

Please answer the following questions.

LIST THE PROCEDURES THAT YOU FIND MOST DIFFICULT TO PERFORM.

INDICATE THE REASONS WHY YOU HAVE A PROBLEM WITH THE PROCEDURES ABOVE.

INDICATE POSSIBLE SOLUTIONS FOR OVERCOMING THE PROBLEMS ABOVE.

LIST TWO GOALS YOU WOULD LIKE TO ACHIEVE IN CLINICAL NEXT SEMESTER.

ADDITIONAL STUDENT OBSERVATIONS/COMMENTS.

FACULTY OBSERVATIONS/COMMENTS.

STUDENT SIGNATURE: _____

FACULTY SIGNATURE: _____

CLINICAL EVALUATION OF STUDENT

Student Name: _____
 Rotation: _____ Dates of Rotation: _____
 Evaluator: _____

For each of the following actions or characteristics regarding the student’s clinical performance, please circle (A) Always, (U) Usually, (S) Sometimes, or (R) Rarely

Stayed in Assigned Area A U S R
 (Arrives in department on time, ready to begin performing exams and/or preparing room; adheres to scheduled clinical hours and attendance policy)

Introduction to Patient A U S R
 (Communicates in a professional manner with patients; puts patients at ease and inspires confidence; properly confirms patient identity and obtains pertinent medical history)

Displayed Respect for the Patient A U S R
 (Maintains patient confidentiality, respects patient’s modesty and provides ample comfort)

Communicated Effectively with the Patient A U S R
 (Explains procedure in terms the patient understands, keeps patient informed throughout examination)

Followed Proper Radiation Safety Procedures A U S R
 (Practices good radiation protection with respect to patients, self, and co-workers by utilizing collimation, obtaining and documenting LMP, setting appropriate technical factors, and utilizing lead shielding when appropriate)

Followed Clinical Education Rules A U S R
 (Adheres to dress code; adheres to program, department, and hospital rules and regulations; holds self to high standards professionally)

Cooperated with Clinical Staff A U S R
 (Offers assistance, seeks responsible assignments/useful activities, accepts constructive criticism and uses it to work as a “team player”; contributes to the efficiency of the radiography department)

Demonstrated Progress A U S R
 (Demonstrates ability to function properly and efficiently, handles non-routine situations appropriately; participates in challenging procedures; strives toward proficiency)

PLEASE PROVIDE COMMENTS ON BACK

Score: _____

Evaluator Signature: _____ Date: _____
 Faculty Signature: _____ Date: _____
 Student Signature: _____ Date: _____

Scoring Key:
 Always = 12.5 points each = 100
 Usually = 11.625 points each = 93 (-0.875 points)
 Sometimes = 10.625 points each = 85 (-1.875 points)
 Rarely = 9.375 points each = 75 (-3.125 points)

SECTION V: CONDUCT & DISCIPLINE

RESPONSIBILITIES OF THE PROGRAM'S FACULTY

The Program faculty members are responsible for:

1. Creating an environment that is conducive to learning.
2. Keeping the students abreast of the latest information in the field.
3. Arranging student clinical assignments.
4. Assuring that the clinical assignments provide for meaningful experiences.
5. Ensuring the appropriate 1:1 student to clinical staff ratio is maintained during clinical rotations.
6. Maintaining all student records.
7. Conferring with the hospital staff on student problems.
8. Acting as resource persons for the students.
9. Acting in a professional manner at all times.
10. Maintaining good public relations between the school and the hospital staff.
11. Utilizing a variety of teaching techniques to enhance the learning process.
12. Treating all students and staff with the respect they deserve.
13. Treating all patients with kindness, compassion and respect.

STUDENT RESPONSIBILITIES

The students are responsible for:

1. Adhering to all Program rules and regulations.
2. Establishing harmonious working relationships with the hospital staff.
3. Respecting all hospital supplies and equipment.
4. Consulting with the hospital staff and school faculty when problems arise.
5. Attending and participating in all school activities.
6. Acting in a professional manner at all times.
7. Treating all faculty, staff and fellow students with the respect they deserve.
8. Treating all patients with kindness, compassion and respect.
9. Not interfering with the education of fellow students.
10. Obtaining ARRT applications, either through the school faculty or through ARRT, and submitting them by postmarking deadline.

STUDENT RIGHTS

Students have the right to:

1. Obtain an optimum education commensurate with their knowledge and abilities.
2. Inspect their educational records.
3. Evaluate teachers and courses regarding effectiveness.
4. Evaluate the clinical instruction provided by clinical staff.
5. Appeal Program decisions.

COUNSELING

Any student who is in need of confidential help with problems, either academic or personal, may elect to fill out a School of Radiologic Technology Program Request for Counseling Form. Once the Program Office receives the form, the student will be contacted to set up a counseling appointment. All students are also eligible for counseling services via the Einstein's Employee Assistance Program. Each student may receive six free confidential counseling sessions each year from Carebridge. The contact number is 215-456-8484 #3.

GENERAL RULES OF CONDUCT

All students are expected to conduct themselves in a manner that is appropriate, ethical and respectful at all times, and in accordance with Network policies and procedures. Behavior including, but not limited to, the following is considered misconduct and may result in immediate dismissal from the School of Radiologic Technology:

- Dishonesty (cheating, plagiarism, record tampering, punching the time card for another student or employee....)
- Violation of criminal law (fraud, vandalism, stealing...)
- Insubordination
- Obscene, disruptive or threatening behavior
- The sale or use of drugs and/or alcohol substances on the hospital premises or the refusal to submit to drug testing if requested by faculty or hospital supervisors
- Sleeping during academic or clinical assignments
- Failure to practice radiation safety or protection standards
- Excessive lateness and/or absenteeism
- Breach of patient confidentiality
- Disregard for patient safety
- Malicious mischief which results in injury to another person

In addition, any violations of rules and conduct toward patients, fellow students or hospital staff, not stated herein, fall under the realm of policies of the Einstein Healthcare Network and its affiliated entities and may be subject to dismissal from the Program.

DISCIPLINARY ACTION

Students who fail to follow any of the policies set forth in this Student Handbook or Einstein Healthcare Network policies may be subject to disciplinary action as defined in the following disciplinary steps:

First Offense – documented warning that will be maintained in the student's file.

Second Offense – clinical grade reduction of one (1) point off clinical grade per offense.

Third Offense – probation and/or dismissal.

The disciplinary process is progressive, providing when appropriate, several steps of disciplinary actions. However, there may be occasions when it is not possible or practical to follow the progression of steps listed above.

GRIEVANCE PROCEDURES

In any organization students may have complaints that require resolution. The Albert Einstein Medical Center's School of Radiologic Technology, the Program, wants to treat its students fairly. Most Program problems can be settled by discussion between the student and the Clinical Coordinator/Instructor. There is a grievance process available to all students in the Program. However, there may be times when a student believes that he/she has been treated unfairly. In that case, the Program should give a student every opportunity to use the grievance process. Although your complaint may not be resolved, as you would like, it will be carefully and justly reviewed to produce a reasonable and fair answer. Students may also use the grievance procedure to appeal any disciplinary action.

The grievance procedure for resolving student problems is an internal one. Non-students or non-employees of EHN are not permitted to be part of this process.

Step 1

If the student and Clinical Coordinator or Clinical Instructor cannot settle the problem, or if because of the nature of the problem the student chooses not to go to the Clinical Coordinator or Clinical Instructor, the student shall first appeal to the Program Director by submitting in writing within seven (7) days of the occurrence of the problem that causes the grievance. The Program Director will give a written answer within seven (7) days indicating his/her decision.

Step 2

If the student and the Program Director cannot settle the problem, the student must appeal in writing providing the basis of the appeal to the Program Director within five (5) days of receipt of Program Director's written answer. The Program Director will promptly notify the Ad Hoc Committee of the Advisory Committee of the student's appeal and schedule a special meeting within five (5) days. If a meeting cannot be scheduled within five (5) days, the Program Director will notify the student of the reason for the delay.

Step 3

The Ad Hoc Committee of the Advisory Committee will notify the student in writing or electronically of the date and time of the meeting. See page 59 of this Handbook for the composition of the Ad Hoc Committee. The student will be informed that he or /she will have an opportunity to meet with the Ad Hoc Committee and has the right to present witnesses on his or /her behalf before it makes its decision. The Ad Hoc Committee will render its decision no more than seven (7) days after the meeting and will forward the decision to the student in writing. The Ad Hoc Committee's decision will rest on the majority opinion of the members attending the appeal meeting.

Step 4

If the student is not satisfied with the Ad Hoc Committee's decision, the student may write to EHN Employee Relations within five (5) days of receipt of the Ad Hoc Committee's written decision to request a hearing. The request must be in writing setting forth the reasons for appeal. Employee Relations will schedule a meeting at which all the parties of the problem will be heard. In most instances, Employee Relations will give its answer in writing to the student with ten (10) days of the meeting. In those instances where an investigation is required, an answer to the student's appeal may be delayed. Should this be necessary, Employee Relations will notify the student to explain the reason for the delay. Employee Relations' decision will be final and forwarded to the student and Program Director.

DISMISSAL APPEALS

A student who has been dismissed from the Program shall bypass Step 1 and request an appeal directly to the Ad Hoc Committee of the Advisory Committee. This request must be made in writing within seven (7) days of the dismissal. The grievance shall then be processed in accordance with Step 2 of the procedure.

STUDENT EMPLOYMENT

Students who have demonstrated competency in all clinical assignment areas in their senior year of training may be offered part time employment by the Albert Einstein Medical Center as a student tech aide. Students may be offered these positions as a result of their student affiliation with EHN. Students who choose to accept these positions are simply accepting part time employment. Students are not permitted to complete competency and/or proficiency testing while working on the clock as a tech aide. Actions performed while on the job, that require disciplinary action, will not affect the student's enrollment status, unless those actions are related to malicious or drug-related offenses. In cases, such as those aforementioned, the manager will report the related events to the program director. Further, EHN reserves the right to terminate the employment of any student who is dismissed from the School of Radiologic Technology Program.

CELL PHONE POLICY

The use of cell phones during the clinical or didactic time is prohibited and will not be tolerated. Cell phones may NOT be used in any patient areas. Cell phones may be used during break times. Any student not following this policy will be asked to leave the class and/or clinical area which will result in the loss of personal time.

DRUG AND ALCOHOL ABUSE PREVENTION

It is contrary to Program policy and unlawful for students or employees to possess, use, or distribute illicit drugs or alcohol on hospital property or as part of the Program's and EHN's activities.

The risk to patients increases if students or employees are under the influence of drugs or alcohol. Performance during an emergency situation when a student or employee must react quickly may be hampered by the use of drugs/alcohol and therefore, may result in injury or death to a patient.

Any student and/or employee who are found to possess, use or distribute drugs or alcohol will be dismissed from the Program. In addition, the Program has the right to contact local, state and federal authorities regarding the possession, use or distribution of drugs or alcohol. When it appears that there is reasonable suspicion of a student being impaired or under the influence of a prohibitive substance; e.g. behavior such as alcohol odor on breath, glassy eyes, slurred speech, staggering, absenteeism, diminished work performance, other conditions or circumstances, the student may be asked to submit to drug testing. Refusal to take a drug test will result in immediate dismissal from the Program.

The following prohibited activities pertain to this policy:

- No student may engage in the unlawful manufacture, distribution, dispensing, possession or consumption of alcohol, controlled substances or any illegal drug on network premises.
- No student may report to work with alcohol odor on his/her breath.
- No student may use any drug in a manner prohibited by law.
- No student may misuse or abuse legally prescribed drugs.
- No student should report for duty or remain on duty when his/her ability to perform assigned functions is affected by alcohol. No student shall use alcohol while on duty, in uniform, or while performing job functions. Students should not consume alcohol prior for reporting for duty in such quantity or timeframe that alcohol is present in their system while on duty.
- The appropriate use of legally prescribed drugs and non-prescription medications is not prohibited. However, the use of any substance, which carries a warning label that indicates that mental functioning, motor skills or judgment may be adversely affected, must be reported to the program director. In addition, the student must obtain a written release from the attending physician releasing the person to perform their job duties any time they obtain a performance-altering prescription.

Students who are dismissed from the Program due to violation of this policy may apply for readmission to the program following documented evidence of counseling and rehabilitation. The decision to readmit the student is left to the Program’s Advisory Committee and each case will be dealt with on an individual basis. If the Advisory Committee decides to readmit a student who has violated this policy, it will provide stipulations concerning the student’s responsibilities and semester placement.

In the event a student is employed by EHN as a student tech aide and is found to be under the influence of drugs and/or alcohol while on duty, the student would be subject to the Program’s policies up to and including dismissal from the program.

In the event you are employed at Einstein Healthcare Network, in any other capacity other than a student tech aide, you are subject to the Network’s employee discipline procedures. Departmental managers will disclose all related information to the Program Director.

SMOKING POLICY

Einstein is committed to providing a safe environment for patients, families, employees, non-employed workers and visitors. The purpose of this policy is to provide a smoke and tobacco free environment across the Einstein Healthcare Network. All Einstein Healthcare Network locations, including, Einstein Medical Center Philadelphia, Einstein Medical Center Elkins Park, Einstein Medical Center Montgomery, Center One, Willowcест, Germantown, Front and Olney, all Einstein outpatient departments, and all Einstein physician practice locations, are “smoke free” campuses and smoking is prohibited anywhere, including vehicles, on these campuses. All Einstein campuses are deemed “smoke/tobacco free” will have the following conditions:

- Smoking and the use of tobacco products are prohibited on any property, inside and outside of all owned or leased buildings, grounds, parking lots and decks, vehicles and sidewalks.
- Out of respect for our neighbors and the communities in which we reside, smoking by our employees is prohibited on the sidewalks immediately adjacent to the facility. Consideration also needs to be extended to neighboring property; smoking, congregating, or littering in neighbors' driveways and/or yards is unacceptable. Those who choose to smoke beyond the prohibited areas by walking on the sidewalks to and from other facilities need to display the

same consideration to neighbors and their properties. At all times, smokers should be responsible for disposing of filters without littering.

- Employees, other covered individuals, patients and visitors may not smoke or use tobacco in his/her own or others' vehicles when the vehicles are on Einstein owned or leased property.

Failure to abide by this policy will result in an infraction notice.

SECTION VI: ATTENDANCE POLICIES

ATTENDANCE POLICY

Attendance during didactic and clinical education enables the student to complete Program objectives and to gain experience in performing radiographic procedures. Therefore, the presence of the student is crucial to the student's achievement of and maintenance of clinical competency and proficiency. It is the responsibility of the student to make arrangements to complete any missed course work or clinical time.

LATENESS POLICY

As a student in this Program, punctuality is strictly enforced to ensure dependable performance. Records of a student's lateness episodes are maintained on file to provide future employers accurate information upon request.

Excessive lateness episodes may affect a student's chances of gaining valuable knowledge, as well impact a clinical grade. A student has three (3) excused lateness episodes per semester no matter what the reason. Four (4) or more lateness episodes will be considered "excessive" and points will be deducted from the clinical grade. No student is expected to be late more than three (3) times in a semester regardless of the reason. **All lateness time will be deducted from a student's personal time.**

Point scale for clinical grade deductions:

0-3 episodes = no points off

4 episodes = one point off

5 episodes = two points off

6 episodes = three points off

7 episodes = four points off

8 or more episodes- Dismissal from Program

If a student chooses to take hourly increments of personal time in the morning (i.e. come in at 10:00am), the student will only be charged for the personal time **if the student fills out a Personal Time Sheet at least one (1) day prior to the day of the occurrence. If the student fails to notify the school office via the Personal Time Sheet the day prior, the student will be charged with both an episode of lateness and for the missed time.**

SEMESTER BREAKS

Semester breaks are listed under the academic calendar and are posted on the student's bulletin board. If a student is absent on a scheduled clinical day before or after a semester break or holiday, he or she must present a doctor's note to the Program faculty. Failure to do so will result in the make-up of two (2) clinical days rather than one. Semester breaks will not be used to complete time requirements for clinical education courses.

UNEXCUSED ABSENCES

Students who must be late or miss a day due to illness are required to contact the Program Faculty *prior* to the start of their shift. Failure to do so, or failure to do so at the proper time, will be considered an unexcused absence, which will result in the student having to make up double the time missed.

TIME RECORDS

Students are expected to clock in and out each day via the E*Value Time Tracking System. Clock in and clock out procedures must be done in the clinical area where the student is assigned. Failure to do so will be considered an unexcused absence of one half day (3.5 hours) and must be made up by the student. The student may only utilize the office or classroom computer for recording time if class immediately follows or precedes. If a student is scheduled for a clinical rotation off of the EMCP campus before and/or after a scheduled class, the student is expected to clock in and out to document the arrival and departure to the assigned clinical rotation and scheduled class.

All time tracking must be completed on an EHN computer. At no time should a student utilize a personal device to access the E*Value Time Tracking System for the purpose of the clocking in or clocking out procedures. Failure to utilize an EHN computer to record time records via the E*Value Time Tracking will result in an infraction notice and/or possible dismissal from the Program.

PERSONAL TIME OFF

The Program recognizes that certain illnesses and emergency situations (unforeseeable situations) may arise. Therefore, the Program grants each student twelve (12) personal days (or eighty-four (84) hours personal time) for the duration of the twenty-three (23) month program to be used in such situations.

If the student exceeds the allotted personal time, at any time during the duration of the program, the student can be dismissed from the Program for excessive absenteeism. However, if the student exceeds the allotted personal time for unforeseeable situations, an exception to dismissal from the Program is at the discretion of the Program Director. In such situations, the student will need to provide the documentation requested by the Program Director to substantiate his/her reason for the absences.

Students who are absent more than three (3) consecutive days will be required to submit a doctor's note upon their return to demonstrate medical clearance to work with patients. Students will be required to review their personal time records on a monthly basis with Program Faculty to sign and ensure they agree with the kept time records.

INCLEMENT WEATHER

Students should not report to the Program when the Philadelphia Public and/or Parochial Schools are closed because of inclement weather, considered snow, ice or flooding that creates dangerous driving conditions. If a student comes in during an inclement weather day, the student may earn additional personal time off. If a student chooses to come in during a weather-related closure, the student must report to their assigned clinical rotation.

JURY DUTY

If a student receives notification to appear for jury duty, the Program Director should be so informed. Time lost for jury duty need not be made up.

DEATH IN THE FAMILY

In the event of a death of an immediate family member, the student must notify the Program faculty and will be granted a three-(3) day excused leave of absence. For the purpose of this policy, an immediate family member is considered a spouse (or common law/domestic partner), parent, brother, sister or child.

If you lose a grandparent, grandchild, parent-in-law, aunt, uncle, niece, nephew or cousin, the student must notify the Program faculty and will be granted one (1) day leave of absence.

INTERVIEW DAYS

Each student will be allowed two (2) interview days during their last two months in the Program. A confirmation on letterhead stationary must be given to the Program Office the following day.

PREGNANCY POLICY

The Albert Einstein Medical Center's School of Radiologic Technology allows a female student the option of whether or not to inform program officials of her pregnancy. If a student chooses to voluntarily inform officials of her pregnancy, it must be in writing to the Program Director and Radiation Safety Office, as per EHN Policy No. A0091.1 (Pregnancy Policy for Occupational Radiation Workers). A sample "Declaration of Pregnancy" form is attached to the aforementioned policy. Upon the student's declaration of pregnancy, arrangements will be made for her to speak with a member of the Radiation Safety Staff regarding the potential for fetal radiation exposure, any concerns, and provisions for additional radiation monitoring. The pregnant student must be allowed to make an informed decision based on her individual needs and preferences. In the absence of this voluntary, written disclosure, a student cannot be considered pregnant with respect to the regulations pertaining to occupational radiation exposure.

Once pregnancy has been confirmed, the student has the right to choose from the following options in regard to her education:

1. She may withdraw immediately from the program in good standing with readmission after the pregnancy.
2. She may continue in the program following consultation with the Radiation Safety office. Modifications will only be made to clinical assignments with the written recommendations of the student's physician and/or Radiation Safety department.
3. She may continue in the program without modification.
4. She may opt to withdraw the written declaration of pregnancy.

The School of Radiologic Technology and the Einstein Healthcare Network assume no responsibility for any untoward pregnancy outcomes as a result of the student's participation in the Program. This policy is subject to change at the discretion of the School of Radiologic Technology and/or the EHN Radiation Safety Department.

SECTION VII: GENERAL POLICIES

ADVISORY COMMITTEE

The Advisory Board Committee to the School of Radiologic Technology was established in 1973 to function in the continued planning, upgrading and implementation of the school program as well as evaluating of student progress. The committee meets twice a year for the specific purpose of program assessment. Additional meetings may be necessary if a problem arises. The Advisory Committee is composed of the following members:

Chairman, Department of Radiology
Medical Advisor, School of Radiologic Technology
Program Director, School of Radiologic Technology
Clinical Coordinator, School of Radiologic Technology
Clinical Instructors, School of Radiologic Technology
Supervisor General Radiology
Director of Radiology Services
Manager of Radiology
Community of Interest Representative
Junior Class President, School of Radiologic Technology
Senior Class President, School of Radiologic Technology

AD HOC COMMITTEE OF THE ADVISORY COMMITTEE

The Ad Hoc Committee will serve as a standing committee of the Advisory Committee to participate in the grievance procedure as set forth in the Student Handbook. The Ad Hoc Committee of the Advisory Committee is composed of the following members:

Chairman, Department of Radiology, or his or her designee
Director of Radiology Services, or his or her designee
Manager of Radiology, or his or her designee

ADMISSION TO THE SCHOOL OF RADIOLOGIC TECHNOLOGY

The Program's Admissions Committee, representing the faculty of the School of Radiologic Technology, selects the applicants who satisfy the admission criteria and demonstrate the capability of completing the Program and becoming registered technologists. All applicants are considered for admission without regard to age, race, creed, color, religion, sex, disability, or national origin.

Minimum Requirements for Admission:

A. High School Diploma or Equivalent

B. Transcript(s)

1. An official high school transcript or an official GED transcript must be submitted.
2. Official transcripts from institutions of higher education must be submitted, *if applicable*. For interested applicants who hold international high school and/or college transcripts, the official transcript and a detailed U.S. equivalency course evaluation must be submitted

detailing the completion and final grades of the minimum program prerequisites. Foreign grades must be converted by one of the following recognized services:

Educational Credential Evaluators, Inc. (414)289-3400
Global Education Group, Inc. (305)534-8745
World Education Services (212)966-6311

PLEASE NOTE: Albert Einstein Medical Center's School of Radiologic Technology is not a Student and Exchange Visitor Program (SEVP) certified school and is unable to sponsor student visas

C. Job Shadowing Experience

Applicants who successfully complete the pre-entrance test and interview are required to shadow a Radiologic Technologist for 6-8 hours in a hospital or imaging center and submit verification of this experience.

D. Three Recommendation Forms

Recommendation Forms should come from individuals familiar with the applicant, and can include the following:

School instructors, school counselors, members of the clergy, or employers can complete the recommendation forms.

Personal references by family members are NOT acceptable.

E. Personal Interview

Applicants who meet the minimum requirements and pass the pre-entrance test with a minimum score of 58% may be called in for interviews. Interviews are only granted to those applicants who are at the top of the applicant pool.

F. Pre-entrance Testing

All potential applicants will be required to take the ***TEAS (Test of Essential Academic Skills)***.

G. Health Form

A pre-entrance medical examination and drug screening must be obtained in order to protect patients and other EHN personnel. Acceptance into the Program is contingent upon this examination.

H. Background Check

In accordance with the Network's policies, a pre-entrance background check must be obtained. Candidates must be of good moral character to sit for the ARRT examination. Those who have been convicted of a crime may be eligible for certification if they have served their entire sentence, including probation and parole, and have their civil rights restored. This determination is made by the ARRT.

I. Physical Demand Analysis for a student

Applicants and enrolled students to the Program must be able to perform the following skills in order to perform the clinical requirements of the school and the technical aspects of a diagnostic radiologic technologist in the work force. Corrective devices are permitted to meet the following minimal requirements.

The applicant and/or student must be able to:

- Communicate in English in order to converse with and instruct patients to relieve their anxiety and to gain their cooperation during procedures.
- Hear a patient talk in a normal tone from a distance of 20 feet.
- Observe the patient in order to assess his/her condition from a distance of 20 feet.
- Read a patient's medical chart.
- Evaluate radiographs to make sure that all images are of diagnostic value and are properly identified.
- Render services and/or assistance to all patients depending upon their individual needs. These needs may involve movement of a patient in and out of a wheelchair, on or off a radiographic table or stretcher, and through a variety of positions in order to obtain images.
- Push, pull and lift up to 40 pounds.
- Manipulate a portable x-ray machine around corners, onto elevators and within patient rooms.
- Maneuver the x-ray tube at standard and non-standard heights at up to 7 feet.
- Draw up sterile contrast media and other solutions without contaminating the needle, syringe or injecting device.
- Select and set the necessary exposure factors using knobs, buttons, dials and switches.
- Place x-ray image receptors in bucky trays and spot film devices.
- Manipulate all locking devices on the radiographic unit.
- Stand for periods of time up to 2 hours while wearing a lead apron.
- Walk a distance of up to 2 miles during a normal workday.

The Program is committed to compliance with the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990 (ADA) and the Americans with Disabilities Act Amendments Act to provide equal enrollment opportunities for qualified student applicants. The Program is also committed to ensuring that enrollment decisions are made without discrimination, including but not limited to, decisions concerning admission, clinical assignments, training, evaluations, working conditions and opportunities for employment.

The Program expresses intent to provide reasonable accommodation, as necessary, for "known" disabilities of qualified applicants or students. It is the responsibility of the individual applicant or student to identify him or herself as an individual with a disability when seeking an accommodation. It is also the responsibility of qualified applicants and students to cooperate in request for medical documentation from an appropriately licensed professional of their disability and how the disability limits their ability to complete their essential job functions. Medical documentation will be kept confidential.

It is the policy of the Program not to discriminate against qualified persons with disabilities in admission or access to any of its Programs, services and activities.

TRANSFER STUDENT POLICY

The Program does not transfer radiography credits into the Program. Any post-radiography student wishing to attend the Program must follow all admission policies and criteria and will be evaluated by the Program faculty. No preference will be given to radiography transfer students.

READMISSION INTO THE PROGRAM

PROCEDURE

Students who have left the Program and wish to reenter the Albert Einstein Medical Center's School of Radiologic Technology must follow the Appeals procedures as set forth in this Handbook by submitting a written appeal request Program Director in writing. (Students who have been dismissed due to clinical failure may NOT be readmitted).

After receiving the reentry request, the Program Director will make a determination regarding reentry and will provide the applicant with the determination in writing.

A determination of reentry provides for any stipulations conditioning reentry. Students who comply with all such stipulations will be classified as matriculating students once again.

POLICY

Students who are granted reentry into the Program will begin the Program as a junior student and are required to pay full tuition again.

Reentry will only be granted once to a student.

DISMISSAL POLICY

Any student who is dismissed from the Program will be informed of the dismissal by the Program Director. An official letter of dismissal will be sent to the student outlining the reason for dismissal. The letter will outline the reason for dismissal and contain a Notification of Dismissal Form. The Notification of Dismissal Form should be returned to the school office. Any student who wishes to appeal a dismissal should request an appeal directly to the Ad Hoc Committee of the Advisory Committee in writing within seven (7) business days of the dismissal as outlined in the Dismissal Appeals Policy on page 53.

WITHDRAWAL POLICY

Any student who wishes to withdrawal from the Program must submit a completed Withdrawal Form to the Program Director. The date the Program Director receives the Withdrawal Form will be recorded as the official date of withdrawal.

CHANGES IN POLICY

The AEMC School of Radiologic Technology Program reserves the right to change or add to the processes, policies, or statements listed in this Student Handbook at any time. Students will be notified

in writing, of any changes made. In addition, any policies not stated herein, fall under the realm of policies of the Albert Einstein Healthcare Network and its affiliated entities.

EDUCATIONAL RECORDS

It is the Program's policy to give students the opportunity to access and inspect their educational records. Students may inspect any information contained in their records with the exception of confidential letters of recommendation.

The educational records of all students entering the program are kept in the school office of the School of Radiologic Technology. The following records are kept and become part of the permanent record: transcripts, radiation-monitoring records, progress notices, infraction notices and Patient or Employee incident reports.

The Medical Advisor, Program Director, Clinical Coordinator, faculty and members of the Advisory Committee to the School of Radiologic Technology are authorized to have access to student educational records for educational, clinical, or recommendation purposes.

Alumni of the program who wish to have their transcripts sent to third parties must fill out a release form and pay a transcript fee of \$5.00.

STUDENT HEALTH POLICY

Students in the program should continue to have their general health care needs taken care of by the family physicians. All students must provide their own medical insurance. Students who become injured or acquire contagious illnesses while on duty in the hospital may report to the Emergency Room or to their own family physician. All accrued costs are the responsibility of the student.

ILLNESS:

Students who acquire a contagious illness while on duty should inform the school faculty or floor supervisors for further instruction. Students who have contagious illnesses such as diarrhea, chicken pox, pink eye... may spread those illnesses to coworkers and patients, therefore, they may not be permitted to be in school or on hospital property until they have been cleared by their family physician.

INJURY:

Students who become injured while on duty must report the incident to the school faculty or floor supervisors immediately. An event report must be completed. At that point, the injured student will be directed for treatment.

Students in the School of Radiologic Technology are expected to comply with all Einstein Infection Control Policies. These policies are on file in the school office.

Students in the program are entitled to receive the Hepatitis B vaccine and the flu vaccine, free of charge. They will also be tested yearly for TB free of charge.

MR SAFETY POLICY

While enrolled in the Albert Einstein Medical Center's School of Radiologic Technology, the student will participate in clinical rotations in the MRI (Magnetic Resonance Imaging) department. During orientation and prior to completing a clinical rotation in MRI, the student must complete the required MR safety training program and complete the "MR Safety Form for the Radiography Student". The MR Safety Training Program is conducted by the MRI Supervisor and/or the MRI Medical Director.

Following completion of the MR Safety Training Program, the student must complete a "MR Safety Form for the Radiography Student" (see Appendix). Completion of the "MR Safety Form for the Radiography Student" will permit an evaluation to determine the safety of permitting the student into the Zone 3/4 environment of the MRI site (see Appendix for EMCP Radiology Departmental Policy No: R053.10 MR Safety). Upon review of the "MR Safety Form for the Radiography Student", the Program Director will, if necessary, consult the MRI Medical Director with any questions or concerns regarding the student's ability to enter a magnetic field. If a student is not cleared to enter Zone 3/4 of the MR site, the program director will notify the student and an accommodation will be made to the MRI clinical rotation.

The student must report to the Program Director, any trauma, procedure or surgery in which a ferromagnetic metallic object/device may have become introduced within or on them any time after completion of the "MR Safety Form for the Radiography Student".

During clinical rotations in MRI, the student must adhere to all MRI safety policies and procedures.

TUITION AND FEES

(ALL PRICES ARE SUBJECT TO CHANGE AT ANY TIME)

- 1. Application** **\$75.00**
To be submitted along with the application in order for the application to be processed.

- 2. TEAS (Test of Essential Academic Skills) Entrance exam** **\$58.00**
Payable at the time of the pre-entrance exam.

- 3. School of Radiologic Technology Tuition and Academic Fees** **\$9,100.00/year**
To pay the student's didactic and clinical education, malpractice insurance, society fees, graduation fee, and marker fee ONLY, payable to EMCP. Tuition assistance is the responsibility of the student applicant. Financial aid is not available from EMCP at this time. Tuition for university courses will be paid directly to the degree granting institution and is not included in the above tuition rate.

Technology Fee **\$150/year**
To pay the student's technology access fee for electronic clinical file maintenance. Payable to EMCP in July each year.

- 4. Jefferson Tuition and Academic Fees** **\$1200.00/course (if applicable)**
Payable directly to Jefferson Philadelphia University + Thomas Jefferson University for each three credit course. * A onetime \$100.00 graduation fee will be assessed prior to receiving the terminal award of Associate Degree at University Graduation.

Jefferson courses are only required if student is unable to meet the graduation requirement of a Associate Degree or higher in the related field of Radiologic Science from a regionally accredited college.

- 5. Other Expected Fees**
 - Books** **\$900.00 (approximately)**
These books must be purchased directly through Rittenhouse Book Distributors.

 - Parking (optional)** **\$60.00 (per month)**
To obtain a parking spot in the hospital garage or surface lot.

 - ARRT fee** **\$200.00**
To register for the American Registry of Radiologic Technology Certification Exam.

 - Uniforms** **\$100.00 (approximately)**
The designated school uniform is a charcoal gray scrub outfit with white shoes and hospital ID badge.

 - CPR** **\$50.00 (approximately)**
If already certified, your card must be presented to the school office and copied to be placed in your student file.

 - Background Checks** **\$35.00 (approximately)**
A pre-entrance background check must be obtained. Candidates must be of good moral character to sit for the ARRT examination. Those who have been convicted of a crime may be eligible for certification if they have served their entire sentence, including probation and parole, and have their civil rights restored. This determination is made by the ARRT.

PROGRAM TUITION POLICY

The Albert Einstein Medical Center's School of Radiologic Technology does *not* accept financial aid.

In an effort to ease the financial strain on the students, the Program permits students to pay their tuition in installments over the course of the academic year. However, students must pay in advance for each semester of education as follows:

1/3 of the yearly tuition is due prior to the start of the Summer semester.

1/3 of the yearly tuition is due prior to the start of the Fall semester.

1/3 (final payment) of the yearly tuition is due prior to the start of the Spring semester.

Students who have not paid for an upcoming semester will not be permitted to attend classes and clinical until the tuition payment is made. Students who miss class or clinical due to unpaid tuition are responsible for making up all missed time and assignments. This tuition policy is only applicable to AEMC School of Radiologic Technology.

TUITION REFUND POLICY

Any student who wishes to withdrawal from the Program is required to given written notice to the Program Director on an official withdrawal form. Any tuition refund due to the student will be calculated from the date that the notice of withdrawal is received in the office. Students who voluntarily leave the Program prior to completion or are dismissed from the Program (hereinafter for this policy considered an "Exit"), and have timely paid the tuition are entitled to a refund according to the following schedule:

If tuition is paid in full (per year):

Exit prior to the end of the first semester – 2/3 tuition refund

Exit prior to the end of the second semester – 1/3 tuition refund

If tuition is paid in installments (per semester):

Exit prior to the end of the first four weeks of class – 2/3 tuition refund

Exit prior to the end of the eighth week of class – 1/3 tuition refund

The refund applies to tuition payments only and does not include any other miscellaneous costs paid upon entering the program. Ignorance of this policy does not relieve the student of any financial obligation. This tuition policy is only applicable to AEMC School of Radiologic Technology.

SECTION VIII: STUDENT RESOURCES & SERVICES

CAFETERIA AND GIFT SHOP

The cafeteria is located on the first floor of the Hackenburg Building; it is open to all EMCP employees and students. It serves breakfast, lunch and dinner. The gift shop is located on the first floor of the Levy Building.

COMPUTER ACCESS

Upon enrollment all students will be granted computer access to the EHN computer system. A Novell account will be issued to each student to generate an email account, access to the EHN intranet and Internet access. Students will also have limited access to the IDXRad software. Students will be oriented to these systems and required to sign a Confidentiality Form provided by EHN.

EMERGENCY MESSAGES

In cases of emergency, students in the Program can be reached at 215-456-6234.

LEARNING RESOURCES

Students in the Program have access to the learning resources listed in the following chart.

RESOURCES	LOCATION
Anatomic Models (full skeleton (3), disarticulated skeleton, complete skull (2), individual bones, life size torso (2), miniature torso, heart, brain, kidney (2), female reproductive tract and digestive tract	Classroom
Audiovisuals and related equipment	Classroom, Libraries
Books	Classroom, EMCP Libraries, School Office
Computers	Classroom, School Office, clinical sites
CPR equipment (adult and infant phantoms, AED trainer, AHA training materials and related supplies)	Einstein Center for Clinical Competency, EMCP Korman Bldg, 2 nd floor
Darkroom	Radiology Department
Image Library	Classroom, School Office
Internet Access	All PC's
Einstein Intranet	All PC's
Patient Care equipment (oxygen equipment, stethoscope (2), sphygmomanometer (2) and venipuncture insertion kits (2 arms, 2 hands)	Classroom
Periodicals	EMCP Libraries
Phantoms (knee, skull, spine (2))	Classroom

RESOURCES	LOCATION
Simulation Center Facility (OR suite, intensive care units (2), SimMan3G, SimMan, SimBaby, SimNewB, various medical equipment and training devices)	Einstein Center for Clinical Competency, EMCP Korman Bldg, 2 nd floor
Simulation Laboratory (general room, various cassettes, grids and related accessories)	Radiology Department Room 5
Visual Aides (x-ray tubes and components, full collimator, control panel, cassette and screen examples, filters, beam restrictors, grids, sensitometer, densitometer, immobilization devices, miscellaneous equipment)	Classroom

LIABILITY INSURANCE

Each student is provided with professional liability insurance at no charge to the student.

LIBRARY

Students in the Program have access to EMCP's three libraries. The School of Radiologic Technology Library, the Department of Radiology Library and the EMCP's Luria Library may be all used to obtain books, journals and audiovisual aides.

LOCKERS

Students are assigned lockers at the beginning of the Program. Lockers are located in both the men and women's lounges and should be used to secure all personal items.

RADIATION SAFETY

Students are provided with radiation-monitoring devices which are collected and processed on a quarterly basis. Students are required to wear the radiation-monitoring device at all times when in a clinical education rotation. Quarterly radiation-monitoring reports are posted on the radiology classroom bulletin board. Students are required to review the quarterly reports and sign their initials to indicate their review of the report.

PROCEDURE FOR BADGE IMPLEMENTATION:

1. The program director will submit radiation badge request to the Radiation Safety Officer.
2. During orientation the Radiation Safety Officer for EHN will provide an overview of radiation protection standards, policies and practices.
3. Students must wear a radiation monitoring device during clinical rotations and follow established department guidelines.
4. Badges will be distributed and collected quarterly.
5. In the event that the film badge is lost, the student will be required to notify the Clinical Coordinator and the Radiation Safety Officer. The Clinical Coordinator will facilitate the issuing of a replacement badge.

6. In the event the badge is contaminated or suspected of contamination, the student will be required to notify the Clinical Coordinator and Radiation Safety Officer.
7. Students may contact the EHN radiation safety officer to review their personal radiation monitoring records.
8. The AEHN ALARA limits that trigger notification/investigation are as follows:

Worker / Badge Category	ALARA Level I (mrem/quarter)	ALARA Level II (mrem/quarter)	Maximum Annual Limit (mrem/year)
Material Workers: (Whole-body)	125	375	5,000
Material Workers: (Lens of Eye)	375	1125	15,000
Material Workers: (Extremities)	1250	3750	50,000
X-Ray Workers: (Whole-body)	125	375	5,000
X-Ray Workers: (Lens of Eye)	375	1125	15,000
X-Ray Workers: (Extremities)	1250	3750	50,000
Interventional Workers: (W Body)	375	625	5,000
Interventional Workers: (Eye lens)	1125	1875	15,000
Interventional Workers: (Extrem.)	3750	6250	50,000
Pregnant Radiation Worker (declared)			500 (entire gestation)
<u>Occupational Radiation Worker Categories:</u>			
Material Workers: Exposure due to Radioactive Materials Use			
X-Ray Workers: Exposure due to X-ray Machine Use			
Interventional Workers: Exposure due to complex fluoroscopic procedures			

NOTE: The student must follow all Radiation Safety guidelines and standards of the Department to which they are assigned.

TESTING ACCOMMODATION

Students may be granted testing accommodations including additional time and/or a distraction free environment for test taking. Students requesting a testing accommodation must submit a completed Request for Accommodation Form to the Program Director for consideration. The Program Director will notify the student and all didactic faculty of an approval for testing accommodation.

APPENDICES:

EHN PREGNANCY POLICY FOR OCCUPATION RADIATION WORKERS

ALBERT EINSTEIN HEALTHCARE NETWORK POLICY AND PROCEDURE

Supersedes
A0091

No. A0091.1
Effective Date: 4/01/09
Page 1 of 3

DEPARTMENT/DIVISION: Radiation Safety

SUBJECT: Pregnancy Policy for
Occupational Radiation Workers

I. PURPOSE

To establish a policy for pregnant radiation workers to limit their exposure to ionizing radiation when their primary duties involve the use of radioactive materials and/or x-ray producing equipment and to provide instruction to the pregnant employee commensurate with potential radiological risks present in the workplace.

II. DEFINITIONS

Declared Pregnant Employee: means a woman who has voluntarily informed the Radiation Safety Department on behalf of the licensee (Albert Einstein Healthcare Network), in writing, of her pregnancy and the estimated date of conception. The declaration remains in effect until the declared pregnant woman withdraws the declaration in writing or is no longer pregnant.

Embryo/Fetus: means the developing human organism from conception until the time of birth.

Dose or radiation dose: is a generic term that means absorbed dose, dose equivalent, effective dose equivalent, committed dose equivalent, or total effective dose equivalent as defined in 10 CFR §20.1003. For purposes of this policy, radiation dose will be expressed in rem, millirem, or Sievert (Sv).

Occupational Radiation Worker: is any individual whose assigned duties involve exposure to sources of ionizing radiation in the possession of the licensee, registrant, or other person. Occupational dose does not include doses received from natural background radiation, as a patient from medical practices and procedures, from voluntary participation in medical research programs, or as a member of the public.

III. POLICY

- A. In accordance with The Code of Federal Regulations, Standards for Protection Against Radiation, 10 CFR §20.1208, the fetal radiation dose during the entire gestational period, due to the occupational exposure of a declared pregnant worker shall not exceed 500 mrem (5mSv).
- B. For the embryo/fetal dose limit of 500 mrem to apply, the worker must declare her pregnancy in writing, with an estimated date of conception, to the Department of Radiation Safety (see Attachment A). It is also recommended that the employee notify her supervisor immediately of the pregnancy. Declaration of pregnancy is completely voluntary. If a worker chooses not to declare her pregnancy, the normal occupational dose limit of 5 rem (5,000 mrem) would be in effect with the provision to maintain occupational radiation exposure "As Low As Reasonably Achievable" (ALARA).

**ALBERT EINSTEIN HEALTHCARE NETWORK
POLICY AND PROCEDURE**

Supersedes
A0091

No. A0091.1
Effective Date: 4/01/09
Page 2 of 3

DEPARTMENT/DIVISION: Radiation Safety

SUBJECT: Pregnancy Policy for
Occupational Radiation Workers

III. POLICY (cont.)

- C. The Department of Radiation Safety will maintain the employee's declaration of pregnancy, and any dose records to the employee and/or to the embryo/fetus from public disclosure.
- D. The pregnant employee shall follow proper established procedures for working in radiation areas and using radiation dosimetry (refer to AEHN Radiation Safety Manual). Any additional or specific recommendations made by the Dept. of Radiation Safety for the duration of the individual employee's pregnancy should also be adhered to by the employee.
- E. If a pregnant employee prefers not to continue working in her position, she may elect to do one of the following with the involvement of Human Resources and her departmental supervisor:
 - 1. Request a transfer to any vacant position for which she is qualified
 - 2. Request a personal leave of absence under the Hospital's Leave of Absence Policy
 - 3. Terminate her employment
- F. This policy does not preclude any Department or supervisor from further adjusting a pregnant employee's duties or schedule to minimize participation in any procedure/activity involving exposure to ionizing radiation.
- G. Radiation Safety will review the pregnancy policies with all groups of occupational radiation workers during annual inservice training sessions. A copy of this policy will also be issued to any new female occupational radiation worker when they are registered or initialized into the AEHN radiation dosimetry program and provided their own personal radiation dosimeter (badge).

IV. PROCEDURE

- A. Declaration of pregnancy will initiate a review of the pregnant employee's radiation exposure history by the Radiation Safety Office. At a minimum, the worker's dosimetry records from the previous 12 months (if available) will be reviewed.
- B. A member of the Radiation Safety Department will arrange to meet with the pregnant employee to discuss her specific job function(s) and assess potential exposures/doses from ionizing radiation. The Radiation Safety Office will decide what specific precautions or monitoring must be observed for the duration of the pregnancy depending on the specifics of the individual employee's job functions.

ALBERT EINSTEIN HEALTHCARE NETWORK
POLICY AND PROCEDURE

Supersedes
A0091

No. A0091.1
Effective Date: 4/01/09
Page 3 of 3

DEPARTMENT/DIVISION: Radiation Safety

SUBJECT: Pregnancy Policy for
Occupational Radiation Workers

IV. PROCEDURE (cont.)

- C. If necessary, the pregnant employee's job functions may have to be adjusted to assure that fetal exposure not exceed 500 mrem for the entire gestation or 50 mrem/month. The Radiation Safety Office will present a copy of any specific job duty restrictions to the pregnant employee's supervisor, in writing, for review and signature.
- D. The Radiation Safety Office will supply the pregnant worker with a copy of both the institutional policy on pregnant radiation workers and the Nuclear Regulatory Commission Regulation Guide 8.13 "*Instruction Concerning Pre-natal Radiation Exposure.*" Recommendations on minimizing radiation exposure will be made on an individual basis.
- E. As needed, or requested, the pregnant employee will be furnished with a radiation dosimeter to monitor fetal exposure and instructions detailing its use.

APPROVED BY: _____ DATE: _____

APPROVED BY: _____ DATE: _____

APPROVED BY: _____ DATE: _____

TO BE REVIEWED: Every Three Years

Policy Owner: Karen Colucci

ALBERT EINSTEIN HEALTHCARE NETWORK
Department of Radiation Safety
(215) 456-6264, 456-6273, 456-6752

DECLARATION OF PREGNANCY

To: Karen M. Colucci, M.S.
Radiation Safety Officer

In accordance with the Nuclear Regulatory Commission's regulations contained in 10CFR§20.1208, "Dose to an Embryo/Fetus," I am declaring that I am pregnant. I believe that I became pregnant in _____ (only the month and year need be provided).

I understand the occupational radiation dose to my embryo/fetus during my entire gestation will not be allowed to exceed 500 mrem (unless that dose has already been exceeded between the time of conception and submitting this letter). I also understand that this declaration will initiate a consultation with a member of the Radiation Safety staff and that meeting the lower dose limits may require a change in job or job responsibilities during my pregnancy.

Finally, I understand that it is my responsibility to notify the AEHN Radiation Safety Office if I am occupationally exposed to ionizing radiation outside of the Albert Einstein Healthcare Network.

Employee Name (printed)

Employee Signature

Date

ALBERT EINSTEIN HEALTHCARE NETWORK
Department of Radiation Safety
(215) 456-6264, 456-6273, 456-6752

INSTRUCTION TO PREGNANT WORKERS

This is to acknowledge that _____ has received instruction on the care to be taken by pregnant workers who may be exposed to ionizing radiation as a consequence of their employment.

The following information has been provided (check all that apply):

- Review of employee's radiation exposure history
- Review of employee's job function and potential for radiation exposure in excess of recommended limits
- Review of occupational and fetal exposure limits
- Review of hospital pregnancy policy (job-specific)
- Methods to minimize radiation exposure to both the mother and the fetus
- Regulatory Guide 8.13 (*Instruction Concerning Prenatal Radiation Exposure*)
- Appendix to Regulatory Guide 8.13 (*Questions and Answers Concerning Prenatal Radiation Exposure - Pregnant Worker's Guide*)
- Time was available for employee questions / concerns

Job Duty Restrictions (if applicable) and Radiation Safety Office recommendations / comments:

Employee Signature: _____ Declaration Date: _____

Estimated Conception Date: _____ Employee Dosimeter No.: _____

Radiation Safety Office Representative: _____

Signature of Employee's Supervisor or Department Head: _____

Attachment A - Page 2

MR SAFETY SCREENING FORM for the RADIOGRAPHY STUDENT

This screening form is necessary to determine if the student is permitted to enter Zone 3 and/or Zone 4 of the MRI sites within any Einstein hospital or facility.

It is important that you complete this form accurately. Individuals who have any kind of metal devices in their body (pacemaker, artificial heart valve, surgical clips, metal fragments, etc.) are potentially in a particularly high-risk group. Such individuals are at risk for injury when exposed to a high magnetic field environment.

PLEASE COMPLETE ALL QUESTIONS

1. Have you had a prior surgery or operation (e.g., arthroscopy, endoscopy, etc.) of any kind?

Yes No

If yes, please indicate date and type of surgery: Date _____ Type of surgery _____

2. Have you had an injury to the eye involving a metal object (e.g., metallic slivers, foreign body)?

Yes No

If yes, please describe: _____

3. Have you ever been injured by any metallic object or foreign body (e.g., bullet, shrapnel, etc.)

Yes No

If yes, please describe: _____

Please mark all others that apply to you:

____ Cardiac pacemaker, wires, or defibrillator

____ Brain aneurysm clips

____ Intracranial shunt: Programmable Type: Codman or Strata

____ History of welding, grinding, or metal in eyes

____ History of eye injury with metal or metal removed from eye

____ Middle ear prosthesis, hearing aid, or implant

____ Eye implant or prosthesis

____ Any known metal fragments, bullets, BB, pellets

Do you have or are you aware of any contraindications that would prevent you from performing routine tasks in the MRI Department as a student?

The information on this form will be kept confidential and will only be utilized for the purpose of determining the safety of the student to enter the Zone 3/4 environment of the MRI department.

WARNING:

Certain implants, devices, or objects may be hazardous to you or others in the MR environment. Do NOT enter the scan room if you have questions or concerns regarding an implant, device, or object.

IMPORTANT INSTRUCTIONS FOR ROTATING IN THE MRI SITE ENVIRONMENT:

Remove all metallic objects before entering the MR environment, including hearing aids, beepers, cell phones, keys, hair pins, barrettes, watches, safety pins, paper clips, money clips, credit cards (or any card with a magnetic strip), coins, pens, pocket knives, nail clippers, steel-toed shoes/boots, tools, etc.. Loose metallic objects are prohibited, as are any other metal devices not specifically labeled and approved for use in the MRI Facility.

I attest that the above information is correct to the best my knowledge. I have read and understand the entire content of this form and I have had an opportunity to ask questions regarding the information on this form.

I have completed the MR Safety Training and reviewed the MR Safety Policy No: R053.10. Furthermore, I understand that I must report to the Program Director any trauma, procedure, or surgery in which a ferromagnetic metallic object or device may have been introduced into my body any time after completion of the "MR Safety Form for the Radiography Student". I understand that this information is essential for not only my own safety but that of the patient and other MRI personnel.

Student Name (Print)

Signature

Date

Form Reviewed by:

Print Name

Signature

Date

EMCP RADIOLOGY DEPARTMENTAL POLICY MR SAFETY

EINSTEIN MEDICAL CENTER POLICY AND PROCEDURE

Date: 6/24/13
Revised Date: 6/27/14

NO: R053.10

Page 1 of 11

DEPARTMENT/DIVISION: Radiology
SUBJECT: MR Safety

I. POLICY

The following policy is to outline safety measures to be followed in the vicinity of the MR suite.

II. PURPOSE

This policy is intended to be used as a guideline and practice for the safety of patients, staff, visitors and other clinical personnel while in or around the vicinity of the MR department.

III. PROCEDURE

1. MRI Medical Director
Ryan Lee, M.D., Neuroradiologist Pager # 23681
2. MRI safety incidents, or “near incidents” that occur in the MRI site are to be reported to the Medical Director(s) of the MRI site within 24 hours.
3. MRI Site Access Restriction
 - A. Zoning “**See ATTACHMENT A**”
 - 1) **Zone 1:** Corridor/Hallways.
Areas freely accessible to the general public. The Area is typically outside the MRI environment but is the area through which patients, health care personnel, and other employees of the site can access the MRI environment.
 - 2) **Zone 2:** Patient Waiting Room/Pre-Screening Room.
This area is the interface between the publicly accessible uncontrolled Zone 1 and the strictly controlled Zone 3 & 4. Patients are greeted in Zone 2 but are not free to move into Zones 3 & 4. It is in Zone 2 that the answers to MRI screening questions, patient’s histories, medical insurance questions, etc., are obtained.
 - 3) **Zone 3:** MR corridor/Hallway.
This area is the region in which free access by unscreened non-MRI Personnel and/or ferromagnetic objects and equipment can result in serious injury or death as a result of interactions between the individuals/equipment and the MRI unit’s particular environment. All access to Zone 3 is to be strictly restricted, with access to regions within it (including Zone 4) controlled by, and entirely under the supervision of MRI Personnel. Zone 3 regions should be physically restricted from general public access by key locks, pass key locking systems, or any other reliable physically restricting method that can differentiate between MRI personnel and non-MRI personnel. Zone 3 areas, 5-gause line should be clearly marked and demarcated as being potentially hazardous.
 - 4) **Zone 4:** MR Scanner Room. This area is synonymous with the MRI scanner magnet room itself and will always be located within Zone 3 as it is the MRI magnet and its associated magnetic field that generates the existence of Zone 3 itself. All access to Zone 4 is restricted to MRI personnel **ONLY** When patients and non-MRI personnel have been properly screened for contraindications, they may then enter the MRI suite under the supervision of the MRI Technologist/Radiologist or other trained MRI personnel.

**EINSTEIN MEDICAL CENTER
POLICY AND PROCEDURE**

Date: 6/24/13
Revised Date: 6/27/14

NO: R053.10

Page 2 of 11

DEPARTMENT/DIVISION: Radiology
SUBJECT: MR Safety

- B. MRI Personnel/Non-MRI Personnel: Two levels of MRI personnel
- 1) **Level One MRI personnel:** Those who have passed minimal safety education efforts to ensure their own safety as they work within Zone 3 regions.
 - 2) **Level Two MRI personnel:** Those who have been more extensively trained and intensively educated in the broader aspects of MRI safety issues including, examples: issues related to the potential for thermal loading/burning, direct neuromuscular excitation from rapidly changing gradients, etc. This includes the MRI Medical Director/MRI trained Radiologists, Physicist, MRI Supervisor and Technologists. It is the responsibility of the MRI Medical Director/ Supervisor not only to identify the necessary training, but also to identify those individuals that qualify as Level Two MRI personnel.
 - 3) **Non-MRI personnel:** All persons **not** having successfully complied with this MRI safety instruction guidelines shall be referred to as **Non- MRI personnel**.
- C. Patient/Non-MRI Personnel Screening:
- 1) **All** Non-MRI personnel wishing to enter Zone 3/4 regions of the MRI site must have first successfully passed an MRI safety screening process to be performed by authorized MRI personnel. The initial screening is done at the time of scheduling for Outpatients and by the patient's physician (or designee) for Inpatients. This includes patients, family members/guardians and hospital personnel involved with the case and volunteer/research persons. **Only MRI personnel** are authorized to perform an MRI safety screen prior to permitting Non-MRI personnel into Zone 3/4 areas.
 - 2) MRI prescreening forms: Family/guardians of non-responsive patients or of patients who cannot reliably provide their own medical histories are to complete a written MRI safety-screening questionnaire prior to their introduction into Zone 3 regions.
ALL completed questionnaires are to be reviewed orally with the patient (if coherent)/family member/guardian in their entirety prior to permitting the patient into Zone 3 regions. All questions must be answered definitively with a "YES" or "NO" or provide specific further information as requested.
 - 3) **ALL** completed questionnaires are then to be signed by the patient/family member/guardian and the Technologist performing the exam or in cases of inpatients, the referring physician or floor nurse. All pre-screening forms will be scanned into the PACS system for permanent storage. **"SEE ATTACHMENT B"**
 - 4) Any individual undergoing an MRI procedure must remove all readily removable metallic personal belongings and devices on or in them (e.g., watches; jewelry; pagers; cell phones, body piercings if removable, contraceptive diaphragms, drug delivery patches and clothing items that may contain metallic fasteners, hooks, zippers, loose metallic components or metallic threads, cosmetics containing metallic, such as eye makeup, in the case you are looking at the orbits) and dressed into a patient gown with no metal fasteners when feasible.

EINSTEIN MEDICAL CENTER POLICY AND PROCEDURE

Date: 6/24/13
Revised Date: 6/27/14

NO: R053.10

Page 3 of 11

DEPARTMENT/DIVISION: Radiology
SUBJECT: MR Safety

D. Patient/Non-MRI Personnel Screening (cont'd)

- 5) On an outpatient basis, the patient can be instructed before hand to wear loose comfortable clothing with no metal on it and females to wear sports bras that have no metal.

NOTE: On drug delivery patches patients referring physician must be contacted to alert of patient to remove patch!

- 1) All patients/Non-MRI personnel with a history of a potential ferromagnetic implant/foreign object penetration must undergo further investigation (e.g., x-ray films, CT scan of the anatomic area or access to written documentation as to the type of implant or foreign object that might be present) prior to being permitted entry into Zone 3 of the MRI area. Once positive ID has been made as to the type of implant/foreign object, best efforts assessments will be made to attempt to identify the MRI compatibility or MRI safety of the implant/ foreign object.
- 2) All patients who have a history of orbit trauma by a ferromagnetic foreign body for which they sought medical attention are to have their orbits cleared by either plain x-ray orbit films (two views), or a review and assessment of contiguous cuts of prior CT (obtained since the suspected traumatic event).
- 3) Final determination of whether or not to scan any given patient with any given implant, foreign body, etc., is to be made by the MRI Medical Director or an MRI trained Radiologist (Level Two)
- 4) MRI scanning of patients/prisoner/parolee wearing radio frequency tagging bracelets and/or metallic handcuffs or anklecuffs, request that the patient be accompanied by the appropriate authorities who can and will remove the restraining device/devices prior to the MRI study and be charged with its replacement following the examination. Potential adverse events include:
 - a. ferromagnetic attractive effects and resultant patient injury
 - b. possible ferromagnetic attractive effects and potential damage to the device and/or its battery pack
 - c. RF interference with the MRI imaging study and secondary image artifact,
 - d. RF-interference with the functionality of the device
 - e. RF power deposition and heating of the bracelet tagging device or its circuitry and secondary patient injury.
- 5) Firefighter/Police/Security safety considerations: For the safety of firefighters and other emergency services personnel responding to an emergency call at the MRI site will be forwarded to a designated Level Two MRI person (see page three for description). This person should, if possible, be on site prior to the arrival of the firefighters/emergency responders to ensure that they do not have free access to Zone 3 or Zone 4 areas. Free access to the areas by firefighters and/or other Non-MRI Personnel with air tanks, axes, crowbars, and other firefighting equipment could be catastrophic or even lethal to those responding or others in the vicinity. So this must be monitored!

**EINSTEIN MEDICAL CENTER
POLICY AND PROCEDURE**

Date: 6/24/13
Revised Date: 6/27/14

NO: R053.10

Page 4 of 11

DEPARTMENT/DIVISION: Radiology
SUBJECT: MR Safety

- D. Patient/Non-MRI Personnel Screening (cont'd)
- 6) For superconducting magnets, the helium is not flammable and does not pose a fire hazard directly. However, the liquid oxygen that can result from the supercooled air in the vicinity of the released gases might well increase the fire hazard in this area. So, in turn if there are appropriately trained and knowledgeable MRI personnel available during the emergency to ensure that emergency response personnel responding to the fire call are kept out of the MRI scanner/magnet room and 5-gauss line, then quenching the magnet during response to an emergency or fire should not be a requirement.
 - 7) However if the fire is in such a location where Zone 3 or Zone 4 needs to be entered for whatever reason by the firefighting and/or emergency response personnel and their firefighting and emergency equipment, a decision to quench the magnet at that point should be **VERY** seriously considered to protect the health and lives of the emergency responding personnel in such a situation. Should a quench be performed, appropriately designated MRI personnel still need to ensure that **ALL** non-MRI personnel (including and especially emergency responding personnel) continue to be restricted from Zones 3 and 4 regions until the designated MRI personnel have personally verified that the static field is either no longer detectable or at least sufficiently attenuated so as to no longer present a potential hazard.
 - a. Dial 6-6911 to report an emergency of a ferromagnetic object vs. a patient/personnel in the magnet bore.
 - b. Dial 6-6911 to report a fire. Follow the fire brochure instructions posted in the MRI Technologist control area. Know these instructions well.
- E. MRI Personnel Screening:
- 1) All MRI Personnel are to undergo an MRI screening process as part of their employment interview process to ensure their own safety in the MRI environment. This is for their protection and the protection of the Non-MRI Personnel under their supervision. **“SEE ATTACHMENT C”**
 - 2) MRI Technologists and aides must immediately report to the MRI Supervisor and all MRI Personnel must then report to the Medical Director, any trauma, procedure or surgery that they experience or undergo in which a ferromagnetic metallic object/device may have become introduced within or on them. This will permit an appropriate screening to be performed upon the employee to determine the safety of permitting that MRI Personnel-designated employee into the Zone 3/4 environment of the MRI site.

EINSTEIN MEDICAL CENTER POLICY AND PROCEDURE

Date: 6/24/13
6/27/14

NO: R053.10 Revised Date:

Page 5 of 11

DEPARTMENT/DIVISION: Radiology
SUBJECT: MR Safety

- F. Device/Object Screening:
- 1) Never assume MRI compatibility or safety information about a device if it is not clearly documented in writing. All unknown external objects/devices being considered for introduction beyond Zone 2 regions should be tested with a strong handheld magnet (1000 gauss) for ferromagnetic properties prior to permitting them entry beyond Zone 2 regions. If a device is not tested and/or its MRI compatibility/safety is unknown, it will not be permitted beyond Zone 2.
 - 2) All equipment (e.g., wheelchairs, stretchers, O2 tanks, etc.) that goes into the MRI magnet room itself, will be labeled MRI safe/compatible.
- G. MRI Safe Practice Guidelines: MRI Technologist:
- 1) MRI Technologists must be ARRT Registered Technologists (RT). Furthermore, all MRI Technologists must be trained as Level Two MRI personnel during their orientation period of training on the MRI unit and before having free access to Zone 3/4 regions. This period of training will be at the discretion of the MRI Supervisor/ Medical Director.
 - 2) All MRI Technologists will maintain current certification in American Heart Association Basic Life Support at the Health Care Provider level.
 - 3) Except for emergency coverage, there will be a minimum of two MRI Technologists or one MRI Technologist and one other individual with the designation of MRI personnel in the immediate Zone 2 through Zone 4 MRI environment. For emergency coverage, the MRI Technologist can scan with no other individuals in their Zone 2 through Zone 4 MRI region as long as there is in-house ready emergency coverage by designated Department of Radiology MRI Personnel (e.g., radiology house staff, radiology attending/residents, etc.)
 - 4) Pregnancy-Related Issues:
 - a. Health care practitioner pregnancies:
 - i. Pregnant health care practitioners are permitted to work in and around the MRI environment throughout all stages of their pregnancy. This includes but not limited to positioning patients, scanning, archiving, injecting contrast material, entering the MRI scan room in response to an emergency, etc.
 - ii. Although permitted to work in and around the MRI environment, pregnant health care practitioners are requested not to remain within the MRI scanner bore or Zone 4 during actual data acquisition/scanning itself.

**EINSTEIN MEDICAL CENTER
POLICY AND PROCEDURE**

Date: 6/24/13
Revised Date: 6/27/14

NO: R053.10

Page 6 of 11

DEPARTMENT/DIVISION: Radiology
SUBJECT: MR Safety

- 4) Pregnancy Related Issues: (cont'd)
 - b. Patient Pregnancies: **SEE ATTACHMENT D**
 - i. Pregnant patients can be accepted to undergo MRI scans at any stage of pregnancy if, in the determination of a Level Two MRI Personnel-designated attending radiologist along with the referring physician, decide the risk-benefit ratio to the patient warranting that the study be performed. Documentation of this decision in the Radiology report and/or the patient's medical record that:
The information requested from the MRI study cannot be acquired via non-ionizing means (e.g., ultrasonography), and the data is needed to potentially affect the care of that patient and/or fetus DURING the pregnancy, and the referring physician does not feel that it is prudent to wait to obtain this data until after the patient is no longer pregnant.
 - ii. MRI contrast agents should NOT be routinely provided to pregnant patients. This will be a decision that will be made on a case-by-case basis by the Level Two MRI Personnel and designated attending radiologist who will assess the particular patient.
 - iii. Pregnant patients undergoing an MRI examination will be given an information sheet outlining the risks/benefits of the MRI procedure to be performed, the alternative diagnostic options available to them (if any), and that they wish to proceed. Form will be in MRI Technologist control room. The completed form will be scanned into the PACS system.
- H. Time Varying Gradient Magnetic Field-Related Issues: Induced Voltages
 - 1) Types of patients needing extra caution: Patients with implanted or retained wires in anatomically and/or functionally sensitive areas (e.g., myocardium or epicardium, implanted electrodes in the brain) will be considered at high risk especially from faster MRI sequences, such as echoplanar imaging (e. g., DWI, functional imaging, perfusion weighted imaging, angiographic imaging. etc.). The decision will be made by the Level Two attending radiologist supervising the case.
- I. Time Varying Gradient Magnetic Field-related issues: Auditory Considerations
 - 1) All patients/volunteers will be offered and encouraged to use hearing protection prior to their undergoing any imaging study in the MRI scanner. This can be earplugs or MRI system approved headphones for music, use of both is also acceptable.

EINSTEIN MEDICAL CENTER POLICY AND PROCEDURE

Date: 6/24/13
Revised Date: 6/27/14

NO: R053.10

Page 7 of 11

DEPARTMENT/DIVISION: Radiology
SUBJECT: MR Safety

- I. Time Varying Gradient Magnetic Field-related issues: Auditory Considerations (cont'd)
 - 2) Patient's family members/guardians, who are there for comfort to the patient during the scan, are also required to wear hearing protection in the MRI scanner room. This is only after they also have been properly scanned by a Level Two MRI Personnel to go into the scanner room.

- J. Time Varying Radiofrequency Magnetic Field-related issues: Thermal
 - 1) All unnecessary and/or unused electrically conductive materials will be removed from the MRI system and not merely unplugged/disconnected, before the onset of imaging.
 - 2) All electrical connections such as on surface coil leads, monitoring devices, etc., must be visually checked by the scanning technologist prior to each scan to ensure the soundness of the thermal and electrical insulation.
 - 3) For electrically conductive material, wires, leads, implants, etc., that are required to remain within the bore of the MRI scanner with the patient during imaging, care needs to be taken to ensure that no large caliber electrically conducting loops are permitted to be formed within the MRI scanner
 - 4) For electrically conductive material, wires, leads, implants, etc., that are required to remain within the bore of the MRI scanner with the patient during imaging, care needs to be taken to place thermal insulation between the patient and the electrically conductive material during imaging, while attempting to (as much as feasible) keep the electrical conductor from directly contacting the patient during imaging. It is also important to position the leads/wires as far as possible from the inner walls of the MRI scanner if the inherent (built in) body coil is being used for radiofrequency transmission.
 - 5) Care also should be issued that the patient's tissues do not directly come into contact with the inner bore of the MRI scanner during the imaging process. If necessary wrap/place towels, blankets, pads, ect, around or on the exposed areas.
 - 6) It is also important to ensure that the patient's own tissues do not form large conductive loops. Therefore instruct the patient not to cross their arms or legs during scan time.
 - 7) Skin staples/Superficial Metallic Sutures: Patients requested to undergo MRI studies in whom there are skin staples or superficial metallic sutures will be permitted to undergo the MRI examination if the skin staples/superficial metallic sutures are not ferromagnetic and are not in the anatomic volume of RF power deposition for the study to be performed.

**EINSTEIN MEDICAL CENTER
POLICY AND PROCEDURE**

Date: 6/24/13
Revised Date: 6/27/14

NO: R053.10

Page 8 of 11

DEPARTMENT/DIVISION: Radiology
SUBJECT: MR Safety

- K. Time Varying Radiofrequency Magnetic Field-related issues: Thermal (cont'd)
- 8) If the non-ferromagnetic skin staples/ superficial metallic sutures are within the volume to be RF irradiated for the requested MRI study these precautions are to be as followed:
 - a. Patient must be warned and made sure of that there is the possibility that they may experience warmth or even burning along the skin staple /superficial metallic sutures area and that if this occurs during scan to alert the Technologist with the "Call Bell".
 - b. At the discretion of the Level Two attending radiologist, a cold compress/ice pack can be placed to help serve as a heat sink for any focal power deposition that may occur, thus decreasing the likelihood of a clinically significant thermal injury/burn to the adjacent tissue. This is only done if it can be safely accomplished.
 - 9) Patients with extensive and/or dark tattoos including tattooed eyeliner also must be warned that they may experience warmth or burning during scan time, which in turn can cause itching and raising of the tattooed area. The cold compress/ice pack can also be used at the discretion of the Level Two attending Radiologist. This approach is especially appropriate if fast spin-echo (or other high RF duty cycle) MRI imaging sequences are being used in the study. Additionally, patients with tattoos that have been placed within 48 hours prior to exam need to be advised that there is a potential for smearing or smudging of the edges of the newly placed tattoo.
 - 10) Patients in whom there are long electrically conductive leads such as Swan-Ganz thermodilution cardiac output capable catheters, Foley catheters with electrically conductive leads, etc., need to be considered at risk for MRI studies if the body coil is to be used for RF transmission over the region of the electrically conductive lead. The attending Level Two radiologist will review these patients and a risk benefit ratio assessment performed prior to permitting them access to the MRI scanner.

**EINSTEIN MEDICAL CENTER
POLICY AND PROCEDURE**

Date: 6/24/13
Revised Date: 6/27/14

NO: R053.10

Page 9 of 15

DEPARTMENT/DIVISION: Radiology
SUBJECT: MR Safety

L. Cryogen-Related Issues:

- 1) In the event of a system quench it is imperative that all personnel/patients be evacuated from the MRI scan room as quickly and safely feasible as possible and the site access be immediately restricted to all individuals until the arrival of the MRI equipment service personnel. (Service phone numbers are located on equipment computer towers along with site ID numbers). Follow guidelines under section II/7 for emergency personnel entering the scan room.

M. Claustrophobia/Anxiety/Sedation-Analgesia:

- 1) There will be no sedation by oral, IV, or IM given by the personnel of the MRI department or at the request of the patient and referring physician on the outside, unless ordered and given by qualified practitioners. The Moderate Sedation Policy must be followed.
- 2) There will be no pediatric sedation/anesthesia unless ordered and given by qualified practitioners. The Moderate Sedation Policy must be followed.
- 3) If a patient has attempted to have the scan done on the MRI equipment and truly cannot go through with it then they may be referred to an open scanner. Patients with Keystone Healthplan East insurance are to be referred to this number: 215-951-8378 to schedule an open MRI.

N. Contrast Agent Safety MRI Safe Practices:

- 1) Contrast Agent Administration Issues: No patient is to be administered prescription MRI contrast agents without orders from a duly licensed physician. Intravenous injection-qualified MRI Technologists may start and attend to peripheral IV access/lines if they have undergone the requisite site-specified training in peripheral IV access and have demonstrated and documented appropriate proficiency in this area. IV certified and contrast certified MRI technologists may administer gadolinium-based MRI contrast agents via peripheral intravenous routes as a bolus or slow continuous injection, as directed by the orders of a duly licensed site physician.

**EINSTEIN MEDICAL CENTER
POLICY AND PROCEDURE**

Date: 6/24/13
Revised Date: 6/27/14

NO: R053.10

Page 10 of 11

DEPARTMENT/DIVISION: Radiology
SUBJECT: MR Safety

- O. Contrast Agent Safety MRI Safe Practices: (cont'd)
Administration of these agents is to be performed as per the ACR policy (Res.1-H, 1987,1997):
The ACR approves of the injection of contrast material and diagnostic levels of radiopharmaceuticals by certified and/or licensed radiologic technologists and radiologic registered nurses under the direction of a radiologist or his/her physician designee who is personally and immediately available, if the practice is in compliance with institutional and state regulations. There must also be prior written approval by the medical director of the Radiology department/service of such individuals; such approval process having followed established policies and procedures, and the radiologic technologists and radiologic registered nurses who have been so approved maintain documentation of continuing medical education related to materials injected and to the procedures being performed.
- P. Prior Contrast Agent Reaction Issues:
- 1) All patients with asthma, allergic respiratory histories, prior iodinated and/or gadolinium-based contrast reactions, etc., must be monitored more closely as they are at a demonstrably higher risk of adverse reaction. This must be reported to the attending radiologist prior to injection of contrast. Any contrast reactions whether prior or new must be documented in the radiology final report, on the patient's chart and in Radiology Information System (RIS/Imagecast). **For patients with impaired renal function see Policy R53.25. MR Gadolinium Administration.**
- Q. MRI Safe Practice Guidelines Regarding Patients In Whom There Are/May Be Intracranial Aneurysm Clips.
- 1) In the event that it is unclear whether a patient does or does not have an aneurysm clip in place, plain x-ray films need to be obtained.
 - 2) In the event that a patient has a known aneurysm clip in place the MRI exam will not be performed until documentation from the manufacturer/surgical physician as to regarding what type; whether it is MRI safe/compatible, is obtained and the Level Two attending radiologist has read this and approved the patient to be scanned. Verbal clarification will not be accepted.
 - 3) All implanted intracranial aneurysm clips that are documented in writing to be composed of titanium (either the commercially pure and/or the titanium alloy types) can be accepted for scanning without any other testing necessary. Again, always check first with the attending Level Two radiologist before scanning the patient.

**EINSTEIN MEDICAL CENTER
POLICY AND PROCEDURE**

Date: 6/24/13
Revised Date: , 6/27/14

NO: R053.10

Page 11 of 11

DEPARTMENT/DIVISION: Radiology
SUBJECT: MR Safety

- Q. MRI Safe Practice Guidelines Regarding Patients In Whom There Are/May Be Intracranial Aneurysm Clips. (cont'd)
- 4) All non-titanium intracranial aneurysm clips manufactured 1995 or later for which the manufacturer's product labeling continues to claim MRI compatibility may be accepted for MRI scanning as per the Level Two attending radiologist.
 - 5) All clips prior to 1995 require documentation and pre-testing. This is always reported to the attending Level Two radiologist and the decision to scan or not would be made. Having safely undergone a prior MRI examination (with an aneurysm clip-or other implant in place) at any given static magnetic field strength is not in and of itself sufficient evidence of its MRI safety or compatibility, and will not be relied upon to determine the MRI safety or compatibility status of that aneurysm clip (or other implant).

APPROVED BY:

Signature: _____ Date: _____
Christine Sawycky, Director Radiology Services

Signature: _____ Date: _____
Ryan Lee, Neuroradiologist

Signature: _____ Date: _____
Terence Matalon, Chairman Radiology

To be reviewed: every 3 years

ARRT CODE OF ETHICS

The ARRT's Code shall serve as a guide by which Radiologic Technologists may evaluate their professional conduct as it relates to patients, colleagues, other members of the medical care team, health consumers and employers. The Code is intended to assist radiologic technologist in maintaining a high level of ethical conduct.

1. The Radiologic Technologist conducts himself/herself in a professional manner, responds to patient needs and supports colleagues and associates in providing quality patient care.
2. 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.
3. The Radiologic Technologist delivers patient care and service unrestricted by the concerns of personal attributes or the nature of the disease or illness, without discrimination regardless of sex, race, creed, religion, or socioeconomic status.
4. The Radiologic Technologist practices technology founded upon theoretical knowledge and concepts, uses equipment and accessories consistent with the purposes for which they have been designed, and employs procedures and techniques appropriately.
5. The Radiologic Technologist assesses situations; exercises care, discretion and judgment; assumes responsibility for professional decisions, and acts in the best interest of the patient.
6. 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.
7. The Radiologic Technologist utilizes equipment and accessories, employs techniques and procedures, performs services in accordance with an accepted standard of practice, and demonstrates expertise in limiting the radiation exposure to the patient, self and other members of the health care team.
8. The Radiologic Technologist practices ethical conduct appropriate to the profession and protects the patient's right to quality radiologic technology care.
9. The Radiologic Technologist respects confidences entrusted in the course of professional practice, respects the patients' right to privacy, and reveals confidential information only as required by law or to protect the welfare of the individual or the community.
10. The Radiologic Technologist continually strives to improve knowledge and skills by participating in educational and professional activities, sharing knowledge with colleagues and investigating new aspects of professional practice.

PATIENT CARE PARTNERSHIP (A PATIENT'S BILL OF RIGHTS)

The Patient's Bill of Rights was first adopted by the [American Hospital Association \(AHA\)](#) in 1973 and revised in October 1992. This document was developed with the expectation that hospitals and health care institutions would support these rights in the interest of delivering more effective patient care.

Introduction

Effective health care requires collaboration between patients and physicians and other health care professionals. Open and honest communication, respect for personal and professional values, and sensitivity to differences are integral to optimal patient care. As the setting for the provision of health services, hospitals must provide a foundation for understanding and respecting the rights and responsibilities of patients, their families, physicians, and other caregivers. Hospitals must ensure a health care ethic that respects the role of patients in decision-making about treatment choices and other aspects of their care. Hospitals must be sensitive to cultural, racial, linguistic, religious, age, gender, and other differences as well as the needs of persons with disabilities.

The American Hospital association presents A Patient's Bill of Rights with the expectation that it will contribute to more effective patient care and be supported by the hospital on behalf of the institution, its medical staff, employees, and patients. The American Hospital Association encourages health care institutions to tailor this bill of rights to their patient community by translating and/or simplifying the language of this bill of rights as may be necessary to ensure that patients and their families understand their rights and responsibilities.

Bill of Rights

These rights can be exercised on the patient's behalf by a designated surrogate or proxy decision maker if the patient lacks decision-making capacity, is legally incompetent, or is a minor.

1. The patient has the right to considerate and respectful care.
2. The patient has the right to and is encouraged to obtain from physicians and other direct caregivers relevant, current, and understandable information concerning diagnosis, treatment, and prognosis. Except in emergencies when the patient lacks decision-making capacity and the need for treatment is urgent, the patient is entitled to the opportunity to discuss and request information related to the specific procedures and/or treatments, the risks involved, the possible length of recuperation, and the medically reasonable alternatives and their accompanying risks and benefits. Patients have the right to know the identity of physicians, nurses, and others involved in their care, as well as when those involved are students, residents, or other trainees. The patient also has the right to know the immediate and long-term financial implications of treatment choices, insofar as they are known.
3. The patient has the right to make decisions about the plan of care prior to and during the course of treatment and to refuse a recommended treatment or plan of care to the extent permitted by law and hospital policy and to be informed of the medical consequences of this action. In case of such refusal, the patient is entitled to other appropriate care and services that the hospital provides or transfers to another hospital. The hospital should notify patients of any policy that might affect patient choice within the institution.
4. The patient has the right to have an advance directive (such as a living will, health care proxy, or durable power of attorney for health care) concerning treatment or designating a surrogate

decision maker with the expectation that the hospital will honor the intent of that directive to the extent permitted by law and hospital policy. Health care institutions must advise patients of the rights under state law and hospital policy to make informed medical choices, ask if the patient has an advance directive, and include that information in patient records. The patient has the right to timely information about hospital policy that may limit its ability to implement fully a legally valid advance directive.

5. The patient has the right to every consideration of privacy. Case discussion, consultation, examination, and treatment should be conducted so as to protect each patient's privacy.
6. The patient has the right to expect that all communications and records pertaining to his/her care will be treated as confidential by the hospital, except in cases such as suspected abuse and public health hazards when reporting is permitted or required by law. The patient has the right to expect that the hospital will emphasize the confidentiality of this information when it releases it to any other parties entitled to review information in these records.
7. The patient has the right to review the records pertaining to his/her medical care and to have the information explained or interpreted as necessary, except when restricted by law.
8. The patient has the right to expect that, within its capacity and policies, a hospital will make reasonable response to the request of a patient for appropriate and medically indicated care and services. The hospital must provide evaluation, service, and/or referral as indicated by the urgency of the case. When medically appropriate and legally permissible, or when a patient has so requested, a patient may be transferred to another facility. The institution to which the patient is transferred must first have accepted the patient for transfer. The patient must also have the benefit of complete information and explanation concerning the need for, risks, benefits, and alternatives to such a transfer.
9. The patient has the right to ask and be informed of the existence of business relationships among the hospital, educational institutions, and other health care providers, or payers that may influence the patient's treatment and care.
10. The patient has the right to consent to or decline to participate in proposed research studies or human experimentation affecting care and treatment or requiring direct patient involvement, and to have those studies fully explained prior to consent. A patient who declines to participate in research or experimentation is entitled to the most effective care that the hospital can otherwise provide.
11. The patient has the right to expect reasonable continuity of care when appropriate and to be informed by physicians and other care givers of available and realistic care options when hospital care is no longer appropriate.
12. The patient has the right to be informed of hospital policies and practices that relate to patient care, treatment, and responsibilities. The patient has the right to be informed of available resources for resolving disputes, grievances, and conflicts, such as ethics committees, patient representatives, or other mechanisms available in the institution. The patient has the right to be informed of the hospital's charges for services and available payment methods.

Conclusion

In the interests of promoting more of a "partnership" philosophy, emphasizing that good healthcare requires effort on the parts of the health care provider(s) *and* the patient, the Patient's Bill of Rights was replaced by the AHA in 2003 by the "[Patient Care Partnership](http://www.aha.org/content/00-10/pcp_english_030730.pdf)." A copy of the pamphlet outlining the Patient Care Partnership can be viewed at http://www.aha.org/content/00-10/pcp_english_030730.pdf