



Jefferson
Thomas Jefferson University

Department of Medical Imaging and Radiation Sciences

Magnetic Resonance Imaging (MRI) Program

Academic Policies and Clinical Education Handbook

2020-2021

Notice of Equal Opportunity

Thomas Jefferson University is committed to providing equal educational and employment opportunities for all persons without regard to race, color, national or ethnic origin, marital status, religion, sex, sexual orientation, gender identity, age, disability, veteran's status or any other protected characteristic. The consideration of factors unrelated to a person's ability, qualifications and performance is inconsistent with this policy. Any person having inquiries or complaints concerning Thomas Jefferson University's compliance with Title VI, Title IX, the Age Discrimination Act of 1975, the Americans with Disabilities Act, or Section 504 of the Rehabilitation Act is directed to contact their Student Affairs Dean or Human Resources – Employee Relations, who have been designated by Thomas Jefferson University to coordinate the institution's efforts to comply with these laws. Any person may also contact the Assistant Secretary for Civil Rights, U.S. Department of Education, Washington, D.C. 20202, or the Director, U.S. Department of Education, Office for Civil Rights, Region Three, Philadelphia, Pennsylvania, regarding the University's compliance with the equal opportunity laws.

Required Background Check

Students who are offered admission to Jefferson in a health related program are generally required to pass a criminal background check and child abuse clearance. Please consult with the Program Director of Office of Admissions for clarification on required paperwork for admission. Additionally, some departments and/or programs within the College, as well as some clinical sites may require students to be fingerprinted and/or drug tested. The Office of Admissions, along with your academic program, will provide you with the appropriate information to complete these requirements.

Clinical rotation, fieldwork, and residency sites that require a criminal background check, child abuse clearance and/or fingerprinting may deny a student's participation in the clinical experience, rotation, fieldwork, or residency because of a felony or misdemeanor conviction or a record of child abuse. Clinical sites may also deny participation in clinical experiences for other reasons, including but not limited to failure of a required drug test, or inability to produce an appropriate health clearance. As participation in clinical experiences, rotations, fieldwork, or residencies is a required part of the curriculum and a requirement for graduation, denial of participation by a clinical site may result in delay of graduation or the inability to graduate from the program.

Regardless of whether or not a student graduates from Jefferson, individuals who have been convicted of a felony or misdemeanor may be denied certification or licensure as a health professional. Information regarding individual eligibility may be obtained from the appropriate credentialing bodies.

The Department of Medical Imaging and Radiation Sciences reserves the right to make policy and procedure changes at any time. Such changes will be distributed for insertion into the appropriate section of the Handbook. All students enrolled in any courses sponsored by the Department must comply with such changes at the time specified by the Department.

Revised 2020

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UNIVERSITY MISSION

We are a university with preeminence in transdisciplinary, experiential professional education, research and discovery, delivering exceptional value for 21st century students with excellence in architecture, business, design, fashion, engineering, health science, and textiles infused with the liberal arts.

ENTERPRISE MISSION

We Improve Lives.

ENTERPRISE VISION

Reimagining health, education and discovery to create unparalleled value.

COMMENTMENT TO DIVERSITY & INCLUSION

We are reimagining diversity and inclusion to promote and cultivate an inclusive environment that celebrates the differences and similarities of our patients, families, students, workforce and the communities we serve to achieve an equitable culture.

MISSION OF THE DEPARTMENT & MRI PROGRAM

The Mission of the Department of Medical Imaging & Radiation Sciences and the MRI Program is to provide a comprehensive education preparing students for entry-level practice in medical imaging and radiation sciences as competent, caring members of the health care team, cultivating professionalism and life-long learning.

PROGRAM GOALS AND STUDENT LEARNING OUTCOMES

Goal # 1: Clinical Performance and Clinical Competence:

MRI Program students will be clinically competent.

Student Learning Outcomes:

1-A. MRI Program students will demonstrate appropriate patient care techniques.

1-B. MRI Program students will demonstrate appropriate equipment skills and techniques.

Goal # 2: Problem Solving Skills and Critical Thinking:

MRI Program students will apply critical thinking and problem solving skills in making decisions about MRI exams.

Student Learning Outcomes:

2-A. MRI Program students will demonstrate appropriate image evaluation techniques.

2-B. MRI Program students will demonstrate appropriate optimization techniques.

Goal # 3: Communication Skills:

MRI Program students will master the communication skills necessary to interact successfully with patients and other members of the healthcare team.

Student Learning Outcomes:

3-A. MRI Program students will demonstrate appropriate oral communication techniques.

3-B. MRI Program students will demonstrate appropriate written communication techniques.

Goal # 4: Professional Development and Growth:

MRI Program students will demonstrate potential for professional development and growth.

Student Learning Outcomes:

4-A. MRI Program students will develop effective work habits and professional values.

4-B. MRI Program students will function as professionals in the healthcare setting.

THE HANDBOOK

This Academic Policies and Clinical Education Handbook serves as a guide for students enrolled in the Department of Medical Imaging & Radiation Sciences, Jefferson College of Health Professions, Thomas Jefferson University.

A Thomas Jefferson University student is required to uphold a high standard of academic and nonacademic conduct. That standard is presented in this document and will be upheld by the Department of Medical Imaging & Radiation Sciences. Academic and nonacademic misconduct at Thomas Jefferson University is subject to disciplinary action.

This handbook is given to matriculating students during orientation. The Department will obtain documentation of the receipt and review of the handbook.

Each student will be responsible for maintaining his/her knowledge of the information contained in the Academic Policies and Clinical Education Handbook, as well as the Jefferson College of Health Professions Catalog, and Jefferson College of Health Professions Student Handbook.

See: www.jefferson.edu/handbook.

NATIONAL CERTIFICATION EXAMINATION

Graduates of the one-year and two-year¹ programs are eligible to take the associated certification examinations of the American Registry of Radiologic Technologists (ARRT), American Registry of Diagnostic Medical Sonographers (ARDMS), Cardiovascular Credentialing International (CCI), Medical Dosimetrist Certification Board (MDCB), and Nuclear Medicine Technology Certification Board (NMTCB), as applicable. Students who pass these examinations receive national certification.

PROGRAM ACCREDITATION

The educational programs of the Department are approved by the University administration. Programs are programmatically accredited by their respective accreditation bodies (e.g. JRCERT, JRCNMT, and JRCEDMS). All programs, including the Computed Tomography, Invasive Cardiovascular Technology and PET/CT programs, are covered under the University's accreditation by Middle States Commission on Accreditation.

PROGRAM COMPLIANCE

A student who believes a program is not in compliance with the accreditation standards should submit a written complaint to the Program Director, including documentation for the complaint. The Department Chair, Program Director, and Clinical Coordinator will review the complaint and documentation and respond to the student within three (3) business days of receiving the complaint. If the student is not satisfied with the response, he/she has the right to contact the accreditation body².

JRCERT

20 N. Wacker
Drive Suite
2850
Chicago, IL 60606-3182
Phone: (312) 704-5300
Fax: (312) 704-5304
<http://www.jrcert.org/>

- 1. Two-year students in all programs EXCEPT sonography are NOT eligible for the certification exams until they have successfully earned a degree from Thomas Jefferson University.*
- 2. Students in the CT, ICVT, or PET/CT Program should contact the Dean of JCHP.*

UNIVERSITY AND JCHP POLICIES AND PROCEDURES

While we have attempted to provide you with a comprehensive departmental handbook, it does not stand alone.

Students are responsible for understanding academic policies and procedures of Thomas Jefferson University and the Jefferson College of Health Professions (JCHP). Important University wide policies, including the Community Standards and Student Sexual Misconduct Policy, and information on University Services are found on the Thomas Jefferson University Center Student Handbook website at www.jefferson.edu/handbook. Students are also directed to the policies and procedures contained in the JCHP Student Catalog and the JCHP Student Handbook, which can be found at <https://www.jefferson.edu/university/health-professions/student-resources.html>.

If you should have any questions throughout your academic career here, we encourage you to reach out to your program director, advisor, or to the Associate Dean for Student and Academic Affairs, Ms. Nannette Fromm at Nannette.fromm@jefferson.edu.

ACADEMIC POLICIES

POLICIES ON STUDENT PROGRESSION

COURSE REQUIREMENTS

1. Program curriculum is sequential in nature and each course must be taken in the prescribed semester according to the plan of study.
2. Students are responsible for accessing courses through Canvas, <https://canvas.jefferson.edu/> and downloading all course syllabi, handouts, and assignments for each course every semester.
3. Students must complete course evaluations for each of their courses at the end of the semester. A link will be provided to the students at the end of each semester.
4. Students must complete the University Orientation, Health Insurance Portability and Accountability Act (HIPAA) module, and Safety module prior to matriculation.
5. Students are responsible for checking their **Jefferson** e-mail accounts daily. All Program related correspondence will occur through this account only.

POLICIES ON UNDERGRADUATE STUDENT PROGRESSION IN THE MEDICAL IMAGING & RADIATION SCIENCES MAJOR

1. Students who earn one course grade of C- or below in the Medical Imaging & Radiation Sciences curriculum in any academic year will be placed on departmental academic probation and will be required to meet with their assigned faculty advisor to monitor academic progress.
2. Students who do not maintain a minimum of a 2.0 cumulative GPA will be placed on University academic probation.
3. Students who earn two or more course grades of C- or below in the Medical Imaging & Radiation Sciences curriculum in any academic year will be dismissed from the Department of Medical Imaging & Radiation Sciences.
4. Students who earn a course grade of F in any Medical Imaging & Radiation Sciences curriculum will be dismissed from the Department of Medical Imaging & Radiation Sciences.
5. Two-year students who have been placed on departmental academic probation during their junior academic year, but has successfully completed their junior academic year, will be taken off departmental academic probation at the beginning of their senior academic year.
6. Incomplete grades for a Medical Imaging & Radiation Sciences course can be assigned only in the case of extenuating circumstances. These circumstances must be reviewed by the faculty prior to the issuance of an "Incomplete" grade. In all cases, an "Incomplete" grade is assigned only when the work already done has been of a quality acceptable to the instructor.

GRADUATION REQUIREMENTS

Requirements for graduation include:

- Completion of a graduation application
- Completion of all clinical and didactic courses in the program's curricular plan of study
- Receiving a passing grade for all clinical and didactic courses in the program's curricular plan of study
- Being in good academic standing at the end of the final semester of the program

TIME TO DEGREE RESTRICTIONS

- Students are required to complete their course of study in no more than 150% of the standard time frame required by the academic program.
 - The one-year Bachelor of Science program has a standard time frame of 12 months.
 - The two-year Bachelor of Science program has a standard time frame of 24 months.
 - The undergraduate certificate program has a standard time from of 12 months.

An extension may be granted in the event of extenuating circumstances. The death of a family member or documented medical illness is examples of unusual and extenuating circumstances.

TRANSFER OF CREDITS/CHALLENGE EXAM, CREDIT BY EXAM, COURSE BY APPOINTMENT

Prerequisites must be completed by the time the student enters Thomas Jefferson University. Credits may be earned through standardized tests, including CLEP for non- science based courses. Thomas Jefferson University does not accept challenge exams.

COURSE REPEAT POLICY

Programs in the Department follow a sequential prescribed curricular plan of study. Courses are only offered one time in a particular semester. If a course is failed with a grade of "F", the student is dismissed from the Department. The Department readmission policy should be followed if a student wishes to seek readmission. An individual plan of study would be created, that includes, but not limited to repeat of the full program's curricular sequence.

READMISSION POLICY

Students who are dismissed from the Department of Medical Imaging & Radiation Sciences due to unsatisfactory academic and clinical performance may, within one-year of the dismissal, apply for re- admission by submitting a written request directly to the Department Chairperson. After a one- year time period, all applications for readmission must be made through the Office of Admissions with a review by the Department Chair. How to let admissions know.

RETENTION OF STUDENT WORK

Student records are maintained by the Department for a minimum period of three years after graduation.

STUDENT ADVISEMENT

All students are required to meet with their faculty advisor at least once during each semester.

COMPETENCY-BASED CLINICAL EDUCATION

COMPETENCY BASED CLINICAL EDUCATION

Competency-based clinical education has been established for the students enrolled in the Department of Medical Imaging & Radiation Sciences programs. It is designed to permit accurate assessment of the knowledge, skills, and attitudes of students in the clinical education component of the program.

Evaluation of students' clinical competencies must be completed by registered technologists under the direction of the Clinical Affiliate Supervisor.

All students must attend the scheduled clinical education rotations (see clinical syllabus). All students must complete the minimum number of clinical competencies in accordance with the requirement of their certification and/or accreditation body. Individual clinical course syllabi will detail the clinical competency requirements to successfully pass the clinical course.

CLINICAL EDUCATION ELIGIBILITY

To be assigned to a Clinical Affiliate, the student must meet the following requirements or obligations:

- Provide and maintain proof of certification in adult, child, and infant cardiopulmonary resuscitation (BLS/CPR/AED for Healthcare Provider).
- Meet program specific technical standards **Appendix A**.
- Complete all immunization requirements prior to commencing or resuming clinical courses..
- Be in compliance with the University requirements for influenza vaccination.
- Complete any additional requirements mandated by the clinical site, department, or university as indicated at the time of the clinical course.

Failure to meet the clinical education eligibility requirements will result in the delay of clinical practical or the failure of clinical courses. Students not in compliance with the eligibility requirements are not permitted to attend clinical and possibly in-person classes.

CLINICAL PRACTICES AND POLICIES

1. Attendance at clinical practical is mandatory.
2. A student who does not demonstrate safe clinical practice will be in violation of clinical practices and policies.
3. A student who does not demonstrate professional behavior and professional practice may be removed from their clinical rotation and clinical site.
4. Safe clinical or professional practice is defined as:
 - a. Adhering to the *Patients' Bill of Rights* - **Appendix B**.
 - b. Performing clinical duties consistent with the professional standards of ethics - **Appendix C**
 - c. Adhering to the code of behavior/conduct outlined in the University, College and Department of Medical Imaging & Radiation Sciences handbooks.
 - d. Adhering to all clinical practices and policies of the clinical site, and as outlined in the University, College, and Department policies and procedures
 - e. Adhering to departmental radiation protection and monitoring practices where appropriate* - **Appendix D, E & F** (*only applicable to modalities that use ionizing radiation).

VIOLATIONS OF CLINICAL PRACTICES AND POLICIES

Violations of Clinical Practices and Policies will typically be addressed through progressive discipline, as follows:

- First violation – written warning and counseling by the Program Director and/or Clinical Coordinator.
- Second violation – possible suspension, at the discretion of the Program Director, or dismissal.
- Third violation – dismissal from the Department.

Depending on the particular circumstances, one or more progressive disciplinary steps may be skipped in instances of particularly serious violations of policies and/or practices, and some egregious violations may result in immediate dismissal from the Department.

POLICY GOVERNING CLINICAL EDUCATION SCHEDULING

The purpose of the clinical assignment is to correlate didactic knowledge with practical skills and attitudes. The total number of students assigned to any clinical site shall be determined by the Department of Medical Imaging & Radiation Sciences and approved by program accreditation bodies.

The student is subject to all rules and regulations of the clinical affiliate. The clinical affiliate reserves the right to suspend or terminate from the site a student who does not adhere to established policies of the program or the clinical affiliate. A student who does not maintain appropriate behavior may be suspended or dismissed immediately. (Refer to the section entitled "Responsibilities of the Student" on page 16.)

Due to the limited number of clinical sites, should a student be asked to leave the assigned clinical site for any disciplinary reason, the Department cannot guarantee the student a new clinical placement. This would result in a failure for the clinical course and dismissal from the Department.

If a student is suspended or dismissed from a clinical affiliate, the Department Chair, Program Director and Clinical Coordinator will review the circumstances for this action. All parties are encouraged to address the issue promptly in writing (within five (5) business days whenever possible) so that resolution of grievance should require no more than three (3) weeks. If the decision to dismiss is upheld, the clinical dismissal will result in a final grade of "F". Students who have reason to believe that the grade has been inappropriately assigned may request a review of the grade in accordance with the provisions of the Grade Appeal Protocol, which is published in the TJU Student Handbook.

CLINICAL AFFILIATE ASSIGNMENT

The Program Director and/or Clinical Coordinator determines student schedules and assignments at clinical affiliates. Assignments at the clinical affiliates are intended to provide the student with a comprehensive clinical education as deemed appropriate by the faculty, and serves to correlate didactic knowledge with practical skills. Students are not guaranteed specific clinical affiliates, however, student input is considered.

Students have the opportunity to select multiple imaging modalities to observe beginning in the first semester of the program. Students may visit or revisit any modality of their choice during the MRI program.

The program provides equitable learning opportunities for all students regarding learning activities and clinical assignments. Any student requesting changes in the clinical schedule must submit written justification for the change to the Program Director and/or Clinical Coordinator. A decision will be made based on the student's educational needs and site availability.

RESPONSIBILITIES OF THE CLINICAL AFFILIATE SUPERVISORS/INSTRUCTORS

The clinical affiliate supervisors/instructors are available to students whenever they are assigned to a clinical setting. Responsibilities include:

- Providing appropriate clinical supervision. Refer to the section entitled "Supervision policy" on page 32
- Providing student clinical evaluation and feedback.
- Providing orientation to the clinical department.
- Providing feedback to the program director and clinical coordinator.
- Being knowledgeable of program goals.
- Understanding the clinical objectives and clinical evaluation system.
- Understanding the sequencing of didactic instruction and clinical education.
- Providing students with clinical instruction and supervision.
- Evaluating students' clinical competence.
- Maintaining competency in the professional discipline and instructional and evaluative techniques through continuing professional development.
- Maintaining current knowledge of program policies, procedures, and student progress.
- Maintaining safety and confidentiality of student records, instructional materials, and other program materials.

RESPONSIBILITIES OF CLINICAL STAFF

Responsibilities of the clinical staff include:

- Understanding the clinical competency system
- Understanding requirements for student supervision
- Supporting the educational process
- Maintaining current knowledge of program policies, procedures, and student progress
- Maintaining safety and confidentiality of student records, instructional materials, and other program materials

RESPONSIBILITIES OF THE DEPARTMENT/CLINICAL COORDINATOR

The Department of Medical Imaging & Radiation Sciences/Clinical Coordinator coordinates the daily operations of clinical education. Duties include, but are not limited to:

- Providing clinical education placements.
- Mentoring students.
- Supervising students.
- Advising students.
- Providing guidance to clinical instructors.
- Reviewing program policies and procedures with clinical affiliate supervisor/instructors.
- Visiting clinical sites each semester to observe and evaluate student performance.
- Maintaining safety and confidentiality of student records, instructional materials, and other program materials.

RESPONSIBILITIES OF THE STUDENT

The student is responsible for:

- Displaying professional appearance in compliance with the dress code policy.
- Establishing harmonious working relationships and earning the respect of the Medical Imaging & Radiation Sciences personnel and other members of the health care team through a professional and dignified posture and attitude.
- Using all equipment and materials responsibly and safely.
- Embodying the highest standards of civility, honesty, and integrity.
- Respecting and protecting the privacy, dignity, and individuality of others.
- Observing and assisting the clinical staff.
- Attending and participating in all scheduled clinical activities.
- Consulting with clinical affiliate supervisors and/or departmental faculty for help with problems.
- Participating in the development of an individualized clinical education plan.
- Maintaining an accurate record of clinical examinations/competencies.
- Recording the number and types of evaluations required during each academic semester.
- Striving to broaden his/her knowledge and background on clinical subject matter by reading professional literature and attending conferences and seminars.
- Incurring all travel costs and expenses. Use personal or public transportation to clinical affiliates. Commuting time and costs are not determining factors for clinical assignments. These time and cost factors are borne solely by the student.
- Meeting with advisor at least once per semester.
- Maintaining safety and confidentiality of student records, instructional materials, and other program materials
- Providing safe and quality patient care including safe radiation practices for patient, self, and the healthcare team.
- Demonstrating clinical progression
- Corresponding in a timely fashion with all program faculty and administration.
- Adhering to all policies and procedures of the clinical affiliate, the Department, the College, and the University

CLINICAL POLICIES

DEPARTMENT POLICY ON CONDUCT

Students must comply with the rules and regulations of the Department of Medical Imaging & Radiation Sciences. Deviation constitutes misconduct. This includes, but is not limited to:

- Sleeping during a clinical assignment.
- Failure to actively participate in clinical education.
- Leaving a clinical assignment or room/area assignment without qualified staff's permission.
- Failure to notify Clinical Affiliate and the Program Director/Clinical Coordinator of absence or lateness.
- Failure to accurately document completion of scheduled clinical rotations (time of start of day's rotation, lunch break, time of end of day's rotation).
- Failure to accurately document competencies in accordance with department regulations.
- Using any personal electronic devices in the patient-care/ clinical education setting.
- Using the hospital computer for any reason EXCEPT hospital business.
- Violation of the supervision policy.
- Violation of any duly established rules or regulations.

FAMILY MEMBERS/FRIENDS WORKING AT CLINICAL AFFILIATE POLICY

It may be deemed a conflict of interest for a student to be supervised or evaluated by family members or friends employed at his/her clinical affiliate. If this situation arises, the student should inform his/her Program Director/Clinical Coordinator so that alternative arrangements can be considered.

FAMILY MEMBERS/FRIENDS CLASSROOM, LAB, & CLINICAL POLICY

At the Clinical Affiliate

- Family and friends are not permitted to visit the student at the clinical affiliate during clinical hours. In particular, unsupervised children are not permitted.
- Family and friends must wait in a public area, and are **not** permitted in scanning or treatment rooms.
- It is not acceptable for students to entertain their family and friends and neglect their professional duties.
- Students may not ask clinical affiliate staff to baby-sit for them.
- TJU's liability insurance does not extend to students' family and friends.

In the Medical Imaging & Radiation Sciences (MIRS) Department

- The University teaching and learning environment is not an appropriate setting for children.
- Faculty and students shall refrain from bringing children to classrooms, studios, laboratories and other instructional settings except in the event of unanticipated emergencies and in those instances, only with appropriate approval.
- When unanticipated emergencies do arise and an exception is being sought, the procedure for seeking approval can be found at <https://www.jefferson.edu/university/academic-affairs/schools/student-affairs/student-handbooks/university-policies/children-in-instructional-settings.html>

In the Medical Imaging & Radiation Sciences (MIRS) laboratories

- Only Medical Imaging & Radiation Sciences students with proper Jefferson ID are permitted in the laboratories.

- The students are not permitted to bring family members or friends in the laboratory at any time.
- Scanning or performing any procedures on family members or friends is not permitted.
- Other Jefferson students or employees who are not part of the Medical Imaging & Radiation Sciences department are not permitted in the MIRS laboratory unless they have signed a waiver to be used as a student volunteer.
- TJU's liability insurance does not extend to students' family and friends.

Failure to comply with the above policy may result in disciplinary action up to and including dismissal from the department.

PERSONAL ELECTRONIC DEVICES POLICY

Students may not carry or use any type of personal electronic device during clinical hours. These devices must be placed with your personal belongings. The use of any type of recording device (camera, video, etc.) is strictly prohibited. Students in violation of this policy may be asked to leave the clinical affiliate and will be marked absent for that day. It is the student's responsibility to notify the Program Director and/or Clinical Coordinator of any absence.

For exceptional circumstances necessitating immediate personal communication by phone or text, students should ask the Clinical Affiliate Supervisor to be excused, attend to the personal business, and return to duty as quickly as possible.

COMPUTER POLICY

Students may not use computers for personal business during clinical hours. Personal business includes (but is not limited to) internet surfing, shopping, emailing, instant-messaging, texting, and printing.

Personal storage devices (USB, flash drives, CDs) are not permitted in the clinical setting.

Students in violation of this policy may be asked to leave the clinical affiliate and will be marked absent. It is the student's responsibility to notify the Program Director and/or Clinical Coordinator of any absence.

STUDENT WORK POLICY

If a student is employed at any clinical affiliate, they must abide by the following policies:

- Students must notify Program officials that they are working at the clinical affiliate.
- Students are not permitted to work during scheduled clinical hours.
- Students may **not** wear student uniforms or Jefferson ID.
- Students may not accrue competencies during non-clinical hours.
- Students may not apply work time to make-up time.
- Students are not covered by Jefferson liability insurance during non-clinical hours.

Non-compliance: Students who do not maintain compliance with the aforementioned clinical policies are subject to disciplinary action, including removal from the clinical affiliate and potential dismissal from the department.

Any clinical time missed due to a violation of these policies will be made up by the student at a later date. The Program Director and/or Clinical Coordinator in cooperation with the Clinical Affiliate Supervisor will determine make-up time. Further disciplinary action may be taken for habitual violations of policies. Refer to the section entitled "Violations of Clinical Practices and Policies" on page 14.

VENIPUNCTURE POLICY

The ARRT clinical competency requirements include performance of venipuncture for injection of contrast agents and radiopharmaceuticals. In order to participate in the performance of venipuncture on patients, students must:

- Have completed all immunizations as required by JCHP.
- Have current BLS certification, as required by the Department of Medical Imaging & Radiation Sciences.
- Have health insurance, as required by JCHP.
- Have completed a venipuncture certification course, as required by the Department of Medical Imaging & Radiation Sciences.
- Attend and complete institutional venipuncture training, as required by clinical affiliates.

**HEALTH INFORMATION CONFIDENTIALITY POLICY:
HEALTH INSURANCE PORTABILITY AND ACCOUNTABILITY ACT
(HIPAA)**

Students must maintain strict confidentiality of all health information of patients at clinical affiliate sites during and after the course of their clinical rotations. Students may neither use nor disclose health information of patients to which they have access, other than as expressly authorized by the clinical affiliate. Students may not record any patient-identifiable information on their personal documents (e.g. clinical logs). Students must be familiar with and adhere to their clinical affiliate's HIPAA policy.

Jefferson's HIPAA/Patient Privacy Policy can be found at,

<https://tjuh.jeffersonhospital.org/policy/index.cfm/universitypnp/view/id/10329>. Please note that this link will only function from within the University's Intranet.

PREGNANCY POLICY

A student who becomes pregnant during a component of the program may voluntarily inform the Program Director, in writing, of their pregnancy.

- Option 1: The student may continue in the program if they choose, without modifications to any component of the program.
- Option 2: The student may take a leave of absence from clinical education, but continue their didactic studies. Clinical assignments will be completed when the student returns.
- Option 3: The student may withdraw from the program and reapply in accordance with College policies.
- Option 4: The student, in writing, may withdraw their declaration of pregnancy at any time and/or for any reason.

Due to the need for special radiation protection education, counseling by the Radiation Safety Officer (RSO) is available.

MAGNETIC RESONANCE IMAGING (MRI) SAFETY POLICY

An MR room has a very strong magnetic field that may be hazardous to individuals entering the MR environment if they have certain metallic, electronic, magnetic, mechanical implants, devices, or objects. Therefore, all Medical Imaging and Radiation Sciences students are required to undergo an MRI Safety lecture and MRI Safety Screening prior to MRI rotations or observations.

1. Students will attend an MRI Safety lecture and be screened for MRI Safety clearance in the fall semester by the MRI Clinical Coordinator.
2. Students will abide by clinical affiliate MRI Safety Protocols during their clinical rotations and/or observations.
3. Students will notify the MRI Clinical Coordinator and be re-screened for MRI Safety clearance, should their status change during the academic year, with regard to any potentially hazardous implants, devices, or objects, prior to MRI rotations or observations.

N95 RESPIRATOR POLICY

Medical Imaging & Radiation Sciences students will be fit tested for a N95 respirator mask. Although students will be fit tested for a N95 respirator mask, the following patient care restrictions must be followed:

- Students will not participate in direct in-person contact with patients who have known, suspected, or presumed COVID-19 infections. Students can, however, follow the clinical course of these patients and participate in their care without direct contact.
- Students will not enter rooms with droplet precaution restrictions.
- Students will not participate in high-risk aerosol-generating procedures (such as endotracheal intubations), even if proper PPE is available.

INCIDENT REPORTS AT THE CLINICAL AFFILIATE

Students who become ill, injured, or involved in an incident during a clinical rotation must:

1. Report immediately to their Clinical Affiliate Supervisor and follow departmental protocol.
2. Immediately contact the Program Director and/or Clinical Coordinator.
3. Student must contact Jefferson Occupational Health Network (JOHN) for Employees & Students as soon as possible (215-955-6835) and follow all instructions given to them by JOHN.
4. Present a note to the Program Director and/or Clinical Coordinator from the Emergency Room Physician, Jefferson Occupational Health Physician, or family physician stating the date the student may resume normal duties.

If a patient is injured while in the student's care, the student must:

1. Make sure that the patient is safe.
2. Report the incident immediately to the Clinical Affiliate Supervisor and follow departmental protocol.
3. Immediately contact the Program Director and/or Clinical Coordinator.

COMMUNICABLE DISEASES

Should students be diagnosed as having an infectious disease, they must report such diagnosis to the Program Director and/or Clinical Coordinator and the Clinical Affiliate Supervisor. The

student may be asked to leave clinical until cleared by his/her physician and Jefferson Occupational Health Network for Employees & Students. The student must present a physician's note to the Program Director and/or Clinical Coordinator stating that the student may resume normal duties.

OCCUPATIONAL EXPOSURES TO INFECTIOUS DISEASE AND/OR BLOODBORNE PATHOGENS

Needlesticks

Get more information on occupational exposures from needles, sharps injuries, splashes, etc. ([accessible by Jefferson staff and students only](#))

What to Do for an Occupational Exposure to Body Fluids (Needlestick or Splash)

If you have sustained an exposure to a body fluid from one of your patients, please follow the instructions below.

1. Wash the exposed area with soap and water. DO NOT USE BLEACH.
2. If a fluid splashed in your eye, rinse with tap water or with sterile saline.
3. If a fluid splashed in your eye, remove your contacts immediately.
4. Advise your supervisor that you have been exposed.
5. Complete the accident report online through PeopleSoft Employee Self-serve System if you are an employee. Students will complete an accident report in OHN.
6. Report to JOHN at 833 Chestnut Street, Suite 204 (when OHN is closed report to the Emergency Department) as soon as possible.
7. Know your patient's name, DOB and MR# as well as the name of the attending physician of the source patient.
8. Source patient testing (hospitalized) can be ordered through Epic by selecting: "Needlestick Inpatient Evaluation" on the drop down menu. (Includes STAT HIV antigen/antibody, hepatitis C antibody, hepatitis B surface antigen)
9. Source patient testing (outpatient population) should include: STAT HIV antigen/antibody, hepatitis C antibody, hepatitis B surface antigen.

OHN will discuss the risks of your exposure and advise whether or not further treatment or evaluation is necessary. A student's insurance may be billed for services resulting from occupational exposure. Please call 215-955-6835 with any questions.

If you are a Jefferson student at an affiliate, please call our office as soon as possible. You may opt to be seen at an emergency department, and the visit will be billed to your insurance. Follow up in OHN is recommended on the next business day. Questions may be directed to Dr. O'Connor at ellen.oconnor@jefferson.edu.

Detailed information on Occupational Health Network for Employees & Students may be viewed on the JOHN website: <https://hospitals.jefferson.edu/departments-and-services/occupational-health-network.html>

Contact Occupational Health Network for Employees & Students

- Phone: 215-955-6835
- Fax: 215-923-5778
- E-mail: jeffuhs@jefferson.edu

Hours of Operation:

- Monday through Friday, 7:30 a.m. to 4 p.m.
 - Closed every Thursday from noon to 1 p.m.

Office Location:

- 833 Chestnut Street, Suite 205, Philadelphia, PA 19107

ATTENDANCE REGULATIONS

DIDACTIC/LABORATORY INSTRUCTION

Each course syllabus details the individual course's attendance policy.

CLINICAL ATTENDANCE RECORDS

Attendance sheets will be used for the documentation of clinical attendance. Each student must personally document the required attendance "in" and "out" time. Students must document the time and have the designated program official (clinical coordinator, clinical preceptor, or clinical staff) approve the documented time. Time not documented must be made up. Under no circumstances is it permissible to document clinical attendance for another student. Any student found guilty of such an offense is subject to disciplinary action including dismissal from the department.

CLINICAL EDUCATION HOURS

Total clinical assignments will not exceed 40 hours per week. Assignments on any one day will not exceed 8 hours, unless otherwise requested by the student and approved by the Program Director and/or Clinical Coordinator in conjunction with the Clinical Affiliate Supervisor, or if patient care responsibilities dictate otherwise. No student will be permitted to leave a patient during the course of an examination, even if such completion requires remaining on duty beyond the end of the shift.

The 2021 Magnetic Resonance standards will be effective January 1, 2021, as set forth by the JRCERT. The 2021 magnetic resonance standards can be found at <https://www.jrcert.org/accreditation-information/accreditation-standards-2021/>

Students will be assigned a lunch period each day, which they are required to take. The lunch break will be commensurate with the practice of the department and area/rotation assignment. The lunch break may not be used to make-up or accrue time.

Clinical Affiliate Supervisors may re-schedule students (within an assigned eight hours) to provide complete exposure to the unique learning opportunities in Medical Imaging & Radiation Sciences. The Clinical Affiliate Supervisor must notify the Program Director and/or Clinical Coordinator of these changes.

Students will participate in designated procedures during their clinical assignments under the guidance of a supervising technologist in the areas to which they are assigned.

PERSONAL DAYS

Students are allocated one personal day each semester. This time cannot be taken in half-days. Time off must be taken in full days (8.5 hours [8 clinical hours plus 30 minute break]). It is not accruable nor is it transferable. A personal time request form must be submitted to the Program Director or Clinical Coordinator via email or other designated method. The Clinical Affiliate Supervisor and Program Director and/or Clinical Coordinator must be notified when a student is out of clinical. This notification must occur via email or phone call per the Clinical Affiliate, Program Director, and Clinical Coordinator instructions,

ABSENCE POLICY

Attendance is required for all scheduled clinical education sessions. The standard clinical day rotation for students is eight (8) hours of clinical activity and a half hour meal break. The start time and end time of the clinical shift will be determined by the Clinical Affiliate, Program Director, and Clinical Coordinator so as to be beneficial to the student's clinical education. Any change in an individual student's start time and end time must be discussed and approved by the Clinical Affiliate and the Program Director and Clinical Coordinator prior to any change.

Students absent from a clinical assignment, for any reason, must call or email the Clinical Affiliate Supervisor and call or email the Program Director and/or Clinical Coordinator prior to the start of the shift. An individual clinical education plan will be coordinated between the Program Director, Clinical Coordinator, Clinical Affiliate Supervisor and student to support the completion of missed time and clinical requirements.

If an emergency arises requiring an early departure from the clinical affiliate, the student must notify both the Clinical Affiliate Supervisor and the Program Director and/or Clinical Coordinator. It is the responsibility of the student to make these calls. An individual clinical education plan will be coordinated between the Program Director, Clinical Coordinator, Clinical Affiliate Supervisor and student to support the completion of missed time and clinical requirements. The attendance record must accurately reflect the early departure time from the clinical setting

Students receive one personal day per semester. Requests must be submitted via the mechanism set by the Clinical Coordinator. Requests for a personal day should be pre-approved by the Clinical Coordinator. Students are responsible for informing the Clinical Affiliate Supervisor of personal days. Personal days are per semester and do not accrue.

For time out of clinical, other than the one personal day, an individual clinical education plan will be coordinated between the Program Director, Clinical Coordinator, Clinical Affiliate Supervisor and student to support the completion of clinical requirements.

Students who are feeling generally unwell, who are symptomatic of COVID 19 (e.g., fever, cough, shortness of breath, loss of taste or smell), who believe they have had recent possible exposure to COVID-19, or who have a confirmed diagnosis of COVID-19 should not attend clinical. Students should contact Jefferson Occupational Health Network (JOHN) for guidance on steps to take. Students must maintain contact with the Program Director and Clinical Coordinator and all parties must be kept up-to-date with any absences and requirements and recommendations for the return to clinical.

Students may be asked to utilize other methods of learning while not in clinical such as, but not limited to, completing assignments that support the clinical course objectives.

Students may also consult the Medical Leave of Absence policy as a certain level of absenteeism will disrupt the continuity of learning and achievement of clinical requirements, including, but not limited to the completion of clinical competencies. Students may be assigned a grade of "I" incomplete in extenuating circumstances.

PUNCTUALITY

Students not in the assigned clinical area at the assigned time will be considered late. Three late arrivals in one semester count as one day's absence. Habitual lateness could lead to dismissal from the Department.

It is the policy of the Department of Medical Imaging & Radiation Sciences that any student who is going to be late must notify both the Clinical Affiliate Supervisor and the Program director/Clinical Coordinator prior to the start of the assigned time. All lost time due to lateness from the clinical area must be made up by the student. Failure to abide by these policies could lead to dismissal from the department.

Students will be advised in writing concerning their habitual lateness or violation of the Department of Medical Imaging & Radiation Sciences lateness policies by the Clinical Coordinator and/or Program Director.

Disciplinary actions including suspensions from the clinical affiliate or dismissal from the Department may be taken against students who persist in habitual lateness or violations of the Departmental of Medical Imaging & Radiation Sciences lateness policies, after previously having been counseled in writing by the Clinical Coordinator and/or Program Director and/or Department Chair at an Advisement Conference.

MAKE-UP TIME

Arrangements must be made with the Clinical Affiliate Supervisor and approved by the Program Director and/or Clinical Coordinator. Make up time may not be assigned to clinical settings on holidays that are observed by the sponsoring institution. Make up time may not be assigned during non-traditional hours of clinical assignments such as weekends. Jefferson's liability insurance covers students during make up time assignments.

The make-up time form is signed upon fulfillment of the time missed. The form will be submitted via email or to the Program Director and/or Clinical Coordinator as required.

The lunch break may not be used to make-up or accrue time.

POLICY CONCERNING DEATH IN THE FAMILY

Upon notification to the Program Director, students will be allowed up to three (3) days of leave of absence for death in the immediate family. Immediate family members include parents, grandparents, spouse, brother, sister or child. Leaves of absence requested because of the death of someone other than an immediate family member may be granted by special permission.

HOSPITAL JOB ACTIONS OR STRIKES

Whenever a strike or job action occurs at an assigned clinical site, students must leave the assignment immediately and report to the Program Director or Clinical Coordinator for further directions. Missed clinical time must be made up.

At no time should a student attempt to cross a picket line to enter a Clinical Affiliate.

JURY DUTY

Being selected for jury duty is a civic responsibility in which the Department encourages students to participate.

Please be advised that the College cannot intervene on the student's behalf should a student be summoned for jury duty.

STUDENT ACTIVITIES

STUDENT ACTIVITIES

Students are encouraged to participate in campus activities, e.g., orientation programs, recruitment functions, social and cultural events, interprofessional activities and the Class Day Pinning Ceremony. Students have the opportunity to represent the students' viewpoints on Department, College, and University committees. The University and Thomas Jefferson University Hospital sponsor many volunteer and mentoring programs. Professional organizations, Jefferson Alumni Association, and the College sponsor many programs that focus on career and professional development.

CLASS DAY PINNING CEREMONY

Graduating students are invited to participate in the Department's Class Day Pinning Ceremony. During the ceremony graduating student names are announced and a pin is given to each graduate by their program faculty. The pin symbolizes the welcoming into the profession. Honors and awards of the graduates, along with clinical educators, are also announced. Friends and family of the graduates are invited to participate in the celebration. The Class Day Pinning Ceremony is a special time to celebrate and acknowledge the hard work and achievements of the Department graduates, faculty, and administrative personnel.

HONORS AND AWARDS

Students are eligible for:

- Department awards for outstanding overall performance
- Awards for clinical excellence

Awards are presented during the Class Day Pinning Ceremony.

PROFESSIONAL SOCIETIES

Students are strongly encouraged to participate in professional activities and to seek memberships in national, state, and local societies. These organizations sponsor competitions for students and several offer scholarships and educational grants.

PROFESSIONAL ORGANIZATIONS

- American Society of Radiologic Technologists (ASRT) <https://www.asrt.org/>
- Philadelphia Society of Radiologic Technologists (PhilaSRT) <https://philasrt.org/>
- Section for Magnetic Resonance Technologists (SMRT) of the International Society for Magnetic Resonance in Medicine (ISMRM) <https://www.ismrm.org/smrt/>
- Association of Collegiate Educators in Radiologic Technology (ACERT) <https://acert.org/>

HONOR SOCIETIES

- Lambda Nu Society (Honor society for radiologic and imaging science professionals) <http://www.lambdanu.org>
 - Information to join Jefferson's PA Gamma Chapter of Lambda Nu is posted in the Canvas page, STUDENTS- Department of Medical Imaging and Radiation Sciences

ADDITIONAL POLICIES

SUPERVISION POLICY

Until the student achieves and documents competency in any given procedure, that procedure must be carried out under the direct supervision of a registered technologist.

DIRECT SUPERVISION

All student MRI procedures are performed under the direct supervision of a qualified practitioner until the student achieves competency. Direct student supervision is defined as student supervision by a qualified practitioner who reviews the procedure in relation to the student's achievement, evaluates the condition of the patient in relation to the student's knowledge, is present during the procedure, and reviews and approves the procedure. Students must be directly supervised until competency is achieved.

INDIRECT SUPERVISION

All student MRI procedures must also be performed under the indirect supervision of a qualified practitioner after a student achieves competency. Indirect supervision is defined as that supervision provided by a qualified practitioner immediately available to assist students regardless of the level of student achievement. Immediately available is interpreted as the physical presence of a qualified practitioner adjacent to the room or location where an MRI procedure is being performed.

DRESS CODE AND APPEARANCE POLICY

UNIFORMS

- The dress code for students enrolled in Medical Imaging and Radiation Sciences programs consists of navy blue hospital scrubs (tops and bottoms) with Jefferson branded embroidery.
- A navy blue scrub jacket with Jefferson embroidery may be worn over the scrub top or a white or navy blue, mock turtleneck may also be worn under the scrub top.
- Name tags must be visible to patient and staff and worn at all times.
- Solid white or solid black, leather footwear or solid white or solid black low-top sneakers. Clogs, sandals or open-toed shoes are not permitted. Students are responsible for keeping shoes neat, clean, and polished. Shoestrings should also be kept clean and properly tied.

APPEARANCE

- Students are required to practice good personal hygiene and present a professional appearance at all times.
- Appropriate and clean attire is required during ALL clinical and didactic sessions.
- Unacceptable apparel includes: short skirts/pants, torn/ripped garments, low-cut tops, lewd and/or suggestive slogans on any clothing
- Keep hair, mustaches and beards neatly trimmed. Long hair must be tied back.
- Fingernails:
 - No artificial nails.
 - No nail polish.
 - Nail length must be less than ¼ inches.
- Keep jewelry to a minimum. Earrings should be of the small post type (no hoops).
- Any body piercing besides the ears should not be evident at clinical affiliate. Tongue rings are unacceptable and are not allowed to be worn.
- Wear makeup conservatively. No perfumes, colognes, lotions or powders are to be worn at clinical sites.
- Any visible tattoos must be appropriately covered.
- Chewing gum is not permitted.
- Students are required to wear identification supplied by Thomas Jefferson University, and Clinical Affiliate Sites if provided, at all times.

Non-compliance

Students not complying with the dress code and appearance policy will be removed from the clinical affiliate. Any clinical time missed due to a dress and appearance standards violation will be made up by the student at a later date. The Program Director and/or Clinical Coordinator in cooperation with the Clinical Affiliate Supervisor will determine make-up time if the site is willing to resume the clinical experience.

CONFIDENTIALITY OF STUDENT RECORDS

Appropriately maintaining the security and confidentiality of student records and other program materials protects the student's right to privacy. Student records are maintained in accordance with the Family Education Rights and Privacy Act (Buckley Amendment). Student records at the clinical sites are maintained by the student/ and or clinical supervisor and are not to be placed in open, public areas of the department.

Appendix A

Department of Medical Imaging and Radiation Sciences Jefferson College of Health Professions Thomas Jefferson University

TECHNICAL STANDARDS FOR A MAGNETIC RESONANCE IMAGING (MRI) TECHNOLOGIST

A Magnetic Resonance Imaging (MRI) Technologist is typically employed in a hospital or a clinic to provide direct care for patients and must be able to apply verified knowledge and skillfully perform MRI procedures. Clinical and laboratory assignments for the MRI program require certain physical demands that are the technical standards of admission. These standards are based upon the minimum tasks performed by graduates of the program as recommended by the American Society of Radiologic Technologists. Listed below are the technical standards that all applicants must meet in order to participate and complete the MRI program:

1. Sufficient visual acuity to accurately administer contrast agents and to monitor imaging equipment as well as provide the necessary patient assessment and care.
2. Sufficient auditory perception to receive verbal communication from patients and members of the healthcare team and to assess the health needs of people through the use of monitoring devices such as intercom systems, cardiac monitors, respiratory monitors and fire alarms.
3. Sufficient gross and fine motor coordination to respond promptly and to implement skills related to the performance of MRI, such as positioning, transporting and imaging patients. MRI technologists must be able to manipulate equipment such as the scan console, power injectors and various RF receiver coils. In addition, MRI technologists must perform venipuncture on a regular basis.
4. Sufficient communication skills (verbal, reading, writing) to interact with individuals and to communicate their needs promptly and effectively, as may be necessary in the patient's/client's interest.
5. Sufficient intellectual and emotional function to plan and implement patient care.

Examples of specific technical standards the MRI student must be able to meet are:

- Lift, transfer and/or move patients from wheelchair/stretchers to scan table. Dock/release and wheel scan table to/from scan room to patient waiting area
- Lift, move, reach or push MRI equipment (lift MRI coils of up to 25 lbs., push/wheel docking table with patient to/from scan room)
- Manual dexterity and ability to bend/stretch
- Distinguish colors and shades of gray
- Demonstrate effective interpersonal relation skills, including patient instruction
- Read and extract information from the medical chart or patient requisitions
- Explain the clinical study verbally and/or in writing

To perform/assist with MRI procedures on patients, students must initially undergo the same screening procedures as patients in order to enter the scan room. The MRI scan room contains a region of intense magnetic field. Objects that display any form of ferromagnetism are therefore of particular concern for MRI. Contraindications for entering the MRI scan room include:

- Certain biomedical implants, materials, and devices (e.g., aneurysm clips, brain clips)
- Certain electrically, magnetically and mechanically activated implants and devices (e.g., cardiac pacemakers, cochlear implants)
- Certain metallic foreign objects (e.g., shrapnel, bullets, metal in eyes)

Appendix B

PATIENTS' BILL OF RIGHTS

<https://www.americanpatient.org/aha-patients-bill-of-rights/>

We consider you a partner in your hospital care. When you are well informed, participate in treatment decisions, and communicate openly with your doctor and other health professionals, you help make your care as effective as possible. This hospital encourages respect for the personal preferences and values of each individual.

While you are a patient in the hospital, your rights include the following:

- You have the right to considerate and respectful care.
- You have the right to be well informed about your illness, possible treatments, and likely outcome and to discuss this information with your doctor. You have the right to know the names and roles of people treating you.
- You have the right to consent to or refuse a treatment, as permitted by law, throughout your hospital. If you refuse a recommended treatment, you will receive other needed and available care.
- You have the right to have an advance directive, such as a living will or health care proxy. These documents express your choices about your future care or name someone to decide if you cannot speak for yourself. If you have a written advance directive, you should provide a copy to your family, and your doctor.
- You have the right to privacy. The hospital, your doctor, and others caring for you will protect your privacy as much as possible.
- You have the right to expect that treatment records are confidential unless you have given permission to release information or reporting is required or permitted by law. When the hospital releases records to others, such as insurers, it emphasizes that the records are confidential.
- You have the right to review your medical records and to have the information explained except when restricted by law.
- You have the right to expect that the hospital will give you necessary health hospital services to the best of its ability. Treatment, referral, or transfer may be recommended. If transfer is recommended or requested, you will be informed of risks, benefits, and alternatives. You will not be transferred until the other institution agrees to accept you.
- You have the right to know if this hospital has relationships with outside parties that may influence your treatment and care. These relationships may be with educational institutions, other health care providers, or insurers.
- You have the right to consent or decline to take part in research affecting your care. If you choose not to take part, you will receive the most effective care the hospital otherwise provides.
- You have the right to be told of realistic care alternatives when hospital care is no longer appropriate.
- You have the right to know about hospital rules that affect you and your treatment and about charges and payment methods. You have the right to know about hospital resources, such as patient representatives or ethics committees that can help you resolve problems and questions about your hospital stay and care.
- You have responsibilities as a patient. You are responsible for providing information about your health, including past illnesses, hospital stays, and use of medicine. You are responsible for asking questions when you do not understand information or instructions. If you believe you can't follow through with your treatment, you are responsible for telling your doctor.

- This hospital works to provide care efficiently and fairly to all patients and the community. You and you visitors are responsible for being considerate of the needs of other patients, staff, and the hospital. You are responsible for providing information for insurance and for working with the hospital to arrange payment, when needed.
- Your health depends not just on your hospital care but, in the long term, on the decisions you make in your daily life. You are responsible for recognizing the effect of life-style on your personal health.
- A hospital serves many purposes. Hospitals work to improve people's health; treat people with injury and disease; educate doctors, health professionals, patients, and community members; and improve understanding of health and disease. In carrying out these activities, this institution works to respect your values and dignity.

Appendix C

ASRT/ARRT CODE OF ETHICS

The Code of Ethics forms the first part of the *Standards of Ethics*. The Code of Ethics shall serve as a guide by which Certificate Holders and Candidates may evaluate their professional conduct as it relates to patients, healthcare consumers, employers, colleagues, and other members of the healthcare team. The Code of Ethics is intended to assist Certificate Holders and Candidates in maintaining a high level of ethical conduct and in providing for the protection, safety, and comfort of patients. The Code of Ethics is aspirational.

1. The radiologic technologist acts in a professional manner, responds to patient needs, and supports colleagues and associates in providing quality patientcare.
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, and without discrimination on the basis of race, color, creed, religion, national origin, sex, marital status, status with regard to public assistance, familial status, disability, sexual orientation, gender identity, veteran status, age, or any other legally protected basis.
4. The radiologic technologist practices technology founded upon theoretical knowledge and concepts, uses equipment and accessories consistent with the purposes for which they were designed, and employs procedures and techniques appropriately.
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 uses equipment and accessories, employs techniques and procedures, performs services in accordance with an accepted standard of practice, and demonstrates expertise in minimizing radiation exposure to the patient, self, and other members of the healthcare team.
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 patient's right to privacy, and reveals confidential information only as required by law or to protect the welfare of the individual or the community.
10. The radiologic technologist continually strives to improve knowledge and skills by participating in continuing education and professional activities, sharing knowledge with colleagues, and investigating new aspects of professional practice.
11. The radiologic technologist refrains from the use of illegal drugs and/or any legally controlled substances which result in impairment of professional judgment and/or ability to practice radiologic technology with reasonable skill and safety to patients.

Appendix D

RADIATION PROTECTION PRACTICES

1. A student is required to exercise sound radiation protection practices at all times. At no time may a student participate in a procedure utilizing unsafe protection practices.
2. A student must be aware of and enforce the policies and procedures of radiation safety in keeping with institutional, state, and national standards.
3. A student will always wear radiation dosimeters in the Clinical Site.
4. A student will wear the radiation film badge outside the clothing, on the torso. A ring badge will be worn when handling radioactive materials.
5. A student will always remove personal radiation dosimeters while having diagnostic medical or dental radiographs taken.
6. A student who deliberately exposes his/her radiation dosimeter will be suspended and/or dismissed from the program.
7. A student will use appropriate shielding.
8. Students must not hold image receptors during any radiographic procedure.
9. Students must not hold patients during any radiographic procedure when an immobilization method is the appropriate standard of care.
10. As students progress in the program, they must become increasingly proficient in the application of radiation safety practices.
11. Radiation protection of the patient and others within the examination room is the student's responsibility when he/she is performing the study.
12. A student may not procedures utilizing ionizing radiation on other students or staff at their request without a prescription for the exam by a physician.
The student will be dismissed from the program for this violation.*
13. A technologist or physician may not procedures utilizing ionizing radiation on a student without a prescription for the exam from the student's physician.
The student will be dismissed from the program for this violation.*

***(PA Code, Title 25. Environmental Protection. Department of Environmental Protection, Chapter 211.11.)**

Appendix E

PERSONAL RADIATION MONITORING

1. Each student is responsible for wearing properly dated radiation dosimeter(s) (body and ring badges) at Clinical Affiliate Sites and in laboratory classes. No student will be allowed in clinical or the laboratory class without properly dated radiation dosimeter(s) appropriately worn.
2. Any student who does not have the properly dated radiation dosimeter(s) will be suspended from his or her clinical area until he/she has the properly dated radiation monitor. Time lost from the clinical area must be made up.
3. Dosimeters will be given to students each month.
4. Each student is responsible for exchanging the radiation dosimeter(s) on the designated day of each month. Radiation dosimeters are exchanged with the Program Director or Clinical Coordinator
5. Dosimeter loss or accident must be reported immediately to the Program Director or Clinical Coordinator. The cost of lost radiation dosimeters is the responsibility of the student.
6. Each student is responsible for submitting their dosimeter(s), on time.
 - **A \$20.00 cash fee will be collected for all unreturned or late radiation dosimeters.**
7. The Program Director or Clinical Coordinator receives monthly radiation dose reports from the Radiation Safety Officer, and informs each student of his/her exposures.
8. Monthly radiation exposures for students **must not** exceed the maximum permissible dosage to occupationally exposed persons as established by state and federal agencies for radiologic health.
9. The Office of Radiation Safety maintains a history of each individual's exposure and anyone may examine his/her own radiation exposure record, or obtain a copy by sending a signed, written request to the Radiation Safety Office.
10. **“High” Radiation Dosimeter Readings**
High or unusual radiation dosimeter readings are investigated by Thomas Jefferson University's Radiation Safety Officer. Readings above designated “Investigation Levels” are evaluated with regard to workload and type of duties performed by the dosimeter wearer; adherence to proper work practices; proper care and use of the dosimeter; and possible exposure of the dosimeter to “non-occupational” radiation sources. In cases where it appears that the high readings may be due to inadequate safe work practices or improper use or storage of the dosimeter(s), the wearer is counseled by Radiation Safety Officer and/or the wearer's supervisor(s).

On completion of the clinical rotation students must return their radiation dosimeter(s) to the Program Director or Clinical Coordinator. Students will be billed for unreturned badges.

Appendix F

RADIATION DOSIMETER USE

Policy Owner: John C. Keklak Contributors/Contributing Departments:

To assess employee occupational radiation dose from ionizing radiation sources external to the body.

POLICY

Radiation dosimeters (“individual monitoring devices” as defined in 10 CFR 20.1203) are to be issued for the purpose of assessing occupational radiation dose as follows:

1. Radiation dosimeters are to be issued to anyone (employee/student/volunteer) whose assigned duties involve potential exposure to ionizing radiation and whom the Radiation Safety Officer has determined meets the requirements for individual monitoring devices as described in applicable federal or state regulations.
2. Radiation dosimeters may also be required for individuals in specific work areas or performing designated tasks, even if not required by state or federal regulations.
3. Radiation dosimeters may be offered as an option to individuals in areas where use of individual monitoring devices is not required by regulations, but where employees may have concerns about their level of radiation exposure. Optional use must be approved by the appropriate Department and/or Division Head and the RSO.
4. Radiation dosimeter readings are routinely reviewed by Radiation Safety Staff and appropriate follow-up action taken as may be indicated by the results.

Definitions:

For the purposes of this Policy and related procedures, the following terms are defined:

“ALARA Investigation Levels” are pre-set dosimeter reading values that trigger formal reviews by Radiation Safety Staff. [ALARA stands for “as low as reasonably achievable” and is a radiation protection philosophy whereby the objective is to keep radiation doses to individuals and populations as far below (maximum) regulatory limits “as is reasonably achievable”.]

“ALARA Investigation Level 1” means total radiation doses in any single calendar quarter (e.g., January 1 to March

31) above the following:

Effective Dose Equivalent (EDE) [“whole body”] above 125 mrem Lens Dose Equivalent (LDE) above 375 mrem

Shallow (“Skin”) Dose Equivalent (SDE) above 1250 mrem Extremity Dose reading above 1250 mrem

“ALARA Investigation Level 2” means total radiation doses in any single calendar quarter (e.g., January 1 to March

31) above the following:

Effective Dose Equivalent (EDE) [“whole body”] above 375 mrem Lens Dose Equivalent (LDE) above 1125 mrem

Shallow (“Skin”) Dose Equivalent (SDE) above 3750 mrem Extremity Dose reading above 3750 mrem

“Dose Equivalent” means the absorbed radiation dose to a human being, modified by appropriate radiation weighting factors, depending on the type of ionizing radiation source, or tissue/organ weighting factors (as may be necessary).

“Deep Dose Equivalent” (“DDE”) means the dose equivalent (tissue dose from external radiation sources) determined for a tissue depth of 1.0 cm, as measured by a radiation dosimeter.

“Effective Dose Equivalent” (“EDE”) [for the purposes of this policy] means the deep dose equivalent (tissue dose from external radiation sources at 1 cm below the surface of the skin) as measured by a radiation dosimeter, adjusted where appropriate by mathematical formulas to take into account the wearing of protective lead garments in the presence of diagnostic energy x-ray radiation.

“Extremity Dose” means the dose equivalent (tissue dose from external radiation sources) to the hands or forearms (below the elbows), or to the feet or lower legs (below the knees) determined for a tissue depth of 0.007 cm, as measured by a radiation dosimeter (e.g., ring dosimeter).

“Lens Dose Equivalent” (“LDE”) means the dose equivalent (tissue dose from external radiation sources) determined for a tissue depth of 0.3 cm, as measured by a radiation dosimeter.

“Millirem (mrem)” is a unit of measure for any “dose equivalent” term.

“Radiation dosimeters” (aka “individual monitoring devices”) means devices designed to be worn by a single individual for the assessment of dose equivalent such as film badges, thermoluminescence dosimeters (TLDs), pocket ionization chambers, etc.

“Shallow (“Skin”) Dose Equivalent” (“SDE”) means the dose equivalent (tissue dose from external radiation sources) determined for a tissue depth of 0.007 cm, as measured by a radiation dosimeter

Procedures:

[The following procedures and/or requirements have been approved by the Jefferson Radiation Safety Committee and instituted by the Radiation Safety Officer under his authority as established by federal and state regulations and institutional policy.]

Dosimeter Wearer Responsibilities

- a. Regardless of whether the dosimeters are issued as required or optional, any employee who is issued any dosimeter is responsible for:
 - i. Wearing the dosimeter while on duty in those areas where there is a potential for radiation exposure.
 - ii. Exchanging worn dosimeters for new ones on the first workday of each wear period (e.g., first day of month or calendar quarter, depending on assigned wear period), unless the new replacement dosimeters' arrival has been delayed, in which case the exchange may be made as soon as possible after the arrival of the new dosimeters).
 - iii. Taking proper care of dosimeters, as described by Office of Radiation Safety instructions, to avoid damaging or contaminating the dosimeters.
 - iv. Not storing dosimeters near radiation sources when not being worn.
 - v. Not wearing dosimeters when being exposed to radiation sources for personal medical purposes (The wearer should notify Radiation Safety if this inadvertently occurs or if administered a radiopharmaceutical).

- vi. Notifying Radiation Safety immediately whenever dosimeters are lost, accidentally damaged, name change is required, place of work has changed, or any reason why accidental exposure may have occurred (i.e., dosimeter accidentally left near source when not worn).
 - vii. Returning all dosimeters and holders upon termination of duties with/near radiation sources.
 - viii. Notifying Radiation Safety/dosimeter distributor of pending employment termination.
 - ix. Otherwise wearing assigned dosimeters in accordance with any other Office of Radiation Safety instructions.
- b. Failure to comply with guidelines and responsibilities listed above may result in forfeiture of (optional) dosimeters and/or disciplinary action.
- c. Any inquiries related to dosimeter use should be directed to the individual's supervisor, dosimeter distributor, or Radiation Safety.

Dosimeter Issuance:

Dosimeters are issued and distributed in accordance with internal Radiation Safety Department Procedure RSO-041: "Badging and Distribution"

Review of Dosimetry Readings

- 1) Dosimetry reports from Jefferson's dosimetry provider (currently Mirion Technologies) should be reviewed by designated Radiation Safety staff within 5 business days of receipt.
- 2) Review of dosimetry results by the Radiation Safety Officer or Senior Health Physicist are to be performed at least quarterly.
- 3) The purposes of such reviews are to:
 - a) Determine if the reading is valid (accurately represents occupational radiation dose)
 - b) Identify possible opportunities for intervention to reduce future dose
- 4) The reviewer is to examine readings for the following:
 - a) Individual readings substantially above others doing similar work
 - b) Individual readings substantially above the wearer's past recorded readings
 - c) Evidence of misuse or damage to the dosimeter
 - d) Evidence of radioactive contamination to the dosimeter
 - e) Calendar quarter total dose readings above "ALARA Investigation Levels" (see definitions)
 - f) Evidence that the wrong analysis algorithms were applied by the vendor in generating the reported reading
 - g) Evidence that the dosimeter had not been properly designated (e.g., "whole body" instead of "collar w/ EDE")
 - h) Any other contributing factor as may be identified in the vendor's report notes.
- 5) The reviewer is to specifically review the DDE, EDE, SDE, LDE, and extremity readings for the dosimeter wear period and the calendar quarter-to-date and year-to-date totals for compliance with occupational dose limits and for any trending that may indicate that annual dose limits could potentially be exceeded.

- 6) The reviewer is to look for possible causes for high or unusual readings including:
 - a) Badges not being properly worn (wrong location, wrong orientation, worn outside of holder, etc.)
 - b) Sub-optimal work practices by the wearer
 - c) Dose to the dosimeter while not being worn (dosimeter left in room during procedures, dose stored near a radiation source or otherwise in a high background area, etc.)
 - d) Dose due to the wearer undergoing a medical procedure involving radiation (e.g., wearer administered a Nuclear Medicine radiopharmaceutical as a patient)
 - e) Dosimeter exposed to unusual environmental conditions (e.g., excessive heat)
 - f) Any other potential cause

- 7) Regarding the review/investigation process:
 - a) Reviews/investigations may require personal contact with the wearer and /or wearer's supervisor in order to perform an evaluation as per the preceding item 4.
 - b) All total readings above "ALARA Investigation Levels" are to be performed and documented. "Level 2" investigations should include direct contact with the wearer and evaluation of work practices where feasible, unless the readings are consistent with an historical pattern previously determined to be reasonable for the workload and practices employed.
 - c) All ALARA Level Investigations are to be documented.
 - d) Summary reports of readings above ALARA Investigation Levels are reported to the Radiation Safety Committee at its regular quarterly meetings.

- 8) Readings for dosimeters issued to specifically assess radiation dose to embryo/fetus of a pregnant individual are to be closely scrutinized with regard to cumulative dose being acquired through the gestation period, in case intervention (e.g., job reassignment) is necessary to assure that applicable dose limits are not exceeded.

Dose History Adjustments:

- 1) Readings determined to be due to non-occupational radiation sources, or to be inaccurate due to some identifiable cause, may be adjusted.
- 2) Adjustments to the wearer's occupational dose history are made after review by the Radiation Safety Officer by notifying the dosimetry vendor in writing, in accordance with the vendor's procedures.

Reports to Wearers:

1. Dosimeter wearers will be notified of radiation doses as obtained as per the criteria specified in regulations contained in 10 CFR 19 or any other applicable state or federal regulation.
2. Individuals may be notified if their cumulative readings in any calendar quarter exceed pre-established 'investigation levels', or if any unusual or apparently 'high' dosimeter reading(s) are identified by Radiation Safety personnel.

3. Regular dose reports [excised of personal information other than dosimeter wearer id number] are provided to the dosimeter distribution group distributor for availability to wearers.
4. Individuals may also obtain their dosimeter results by making proper request to the Office of Radiation Safety. Such requests generally are required to be made in writing to protect the individual's personal information from release to unauthorized personnel.

Confidentiality:

1. Individual radiation dose readings are considered as protected information and access to this information is limited to Radiation Safety personnel, supervisors, program directors, management personnel, members of the Radiation Safety Committee, regulatory inspectors, or others (with RSO approval) with a legitimate need-to-know,
2. Release of individual dose information in any circumstances is limited to the minimum necessary.
3. Any other personal information obtained by the Office of Radiation Safety in the administration of the dosimeter program is treated as confidential.

Attachment(s): na References and Citations:

Internal Office of Radiation Safety Procedure RSO-041 "Badging and Distribution"

[Copies of the above reference may be obtained by contacting the Office of Radiation Safety, 215-955-7813.]

Title 10, Code of Federal Regulations (10 CFR) as incorporated by reference in Title 25 Pa. Code Chapter 219; specific sections as follows:

10 CFR 20.1003 (definitions)

10 CFR 20.1201; 20.1207; 20.1208 (re occupational dose limits)

10 CFR 20.1502 (requirements for use of individual monitoring devices)

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