



**Jefferson**  
Thomas Jefferson University

Department of Medical Imaging and Radiation Sciences

# Invasive Cardiovascular Technology 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 & INVASIVE CARDIOVASCULAR TECHNOLOGY PROGRAM**

The Mission of the Department of Medical Imaging & Radiation Sciences and the Invasive Cardiovascular Technology 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**

### **PROGRAM GOALS**

The didactic, laboratory and clinical education experience for the Invasive Cardiovascular Technology Program in Medical Imaging & Radiation Sciences will provide a learning environment for students to develop and master:

- clinical skills to work closely with the cardiovascular team
- effective communication techniques required to interact successfully with both patients and other members of the health care team
- self-assessment skills required to evaluate correctly the quality and quantity of their work
- critical thinking skills required to meet the challenges of the dynamic healthcare environment
- values for commitment to life-long learning, public education and involvement in their professional organizations.

### **STUDENT LEARNING OUTCOMES**

The objectives of the program are to develop an invasive cardiovascular technologist who will be able to:

- record and perform preliminary analysis of invasive cardiovascular data in procedures.
- prepare, calibrate and operate monitoring instrumentation utilized for determining the presence and extent of cardiovascular abnormalities in diagnostic laboratory or operating room settings.
- collect and prepare diagnostic test data for review by a physician
- work collaboratively as part of the healthcare team.
- apply appropriate protection practices toward the patient, self, the health care team and the public.
- contributes to the physical and psychological comfort of the patient under the guidelines of the Patient Bill of Rights.
- adheres to the CVT code of Ethics in professional practice.
- assume responsibility for professional development.
- demonstrate communication ability by establishing rapport with patient and healthcare team.

## **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](http://www.jefferson.edu/handbook).

### **NATIONAL CERTIFICATION EXAMINATION**

Graduates of the one-year and two-year<sup>1</sup> 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 body<sup>2</sup>.

- 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](http://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](mailto: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\*. See Appendix D, E, F & G (\*only applicable to modalities that use ionizing radiation)
  - f. Adhering to the Radiographer's scope and practice standards, **appendix I**.

## **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 15.)

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.

Please see appendix J and K for the policy regarding students in clinical mammography rotations or other imaging procedures performed by professionals who are of the opposite gender of the patient.

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 ICVT 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 28
- 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.

**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.

Please refer to appendix G that includes appropriate information regarding radiation safety for the student and fetus.

## **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 BLOOD BORNE PATHOGENS**

### **Needlesticks**

Get more information on occupational exposures from needlesticks, 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](mailto: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](mailto: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**

EXXAT software 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.

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 the EXXAT software 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. All clinical absences must be made up at the clinical affiliate where the time was missed, consistent with the room assignments in effect when the absence occurred.

The make-up time form is signed upon fulfillment of the time missed. The form will be submitted via EXXAT or other means determined by the 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**

- 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/>
- 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.

## DRESS CODE AND APPEARANCE POLICY

Dress and appearance standards promote a consistent professional image and help patients and employees feel safe, confident, and comfortable. One must present a professional appearance at all times. The following charts list the acceptable and unacceptable dress and appearance standards.

### Dress standards

	<b>Acceptable</b>	<b>Unacceptable</b>
<b>Tops</b>	<p>Navy scrub top. Jefferson branded embroidery</p> <p>Tops in good condition, wrinkle-free and fit appropriately.</p> <p>A solid color white or black crew tee shirt may be worn under the scrub top. Sleeves should not extend beyond the scrub top sleeves.</p>	<p>Tight, clingy, over-sized, or excessively baggy-fitting tops.</p> <p>Wrinkled, shrunk, faded, stained (including under arms), or worn-out tops.</p> <p>Tops that reveal the abdomen when standing, lifting or bending over. Tops that expose the cleavage, bra, back, shoulder, chest, lower back or under garments is not allowed.</p> <p>Shirts under the scrub top that extend beyond the scrub top sleeve. Shirts under the scrub top that are not solid white or black or have graphics or other patterns.</p>
<b>Jackets</b>	<p>Navy scrub jacket. Jefferson branded embroidery</p> <p>Jacket in good condition, wrinkle-free and fits appropriately.</p> <p>This jacket is optional but it is the only approved jacket.</p>	<p>Tight, clingy, over-sized, or excessively baggy-fitting jacket.</p> <p>Wrinkled, shrunk, faded, stained (including under arms), or worn-out jacket.</p> <p>Sweatshirts, hoodies, fleece jackets, or any other type of covering.</p>
<b>Pants</b>	<p>Navy scrub pant.</p> <p>Pants in good condition, wrinkle-free and fit appropriately.</p>	<p>Tight, clingy, over-sized, or excessively baggy-fitting pants. Baggie pants worn below the hips or that expose underwear.</p> <p>Wrinkled, shrunk, faded, stained, or worn-out pants.</p> <p>Pants that reveal the lower back or undergarments when standing, lifting or bending over.</p> <p>Pant hemlines that touch or drag on the ground.</p>
<b>Undergarments</b>	<p>Must be worn at all time.</p>	<p>These items are not to be visible or show through clothing.</p>



<b>Footwear</b>	<p>Solid white, leather, low-top sneaker footwear with laces that tie. Closed toe and closed heel with a solid upper covering (no holes on the top or side of the shoe)</p> <p>Shoestrings should be properly tied.</p> <p>Shoes and laces must be clean and in good condition with no holes or tears</p>	<p>Clogs, sandals, flip-flops, slippers or open-toed shoes are not permitted.</p> <p>Colors other than solid white.</p> <p>Dirty or odor-ridden footwear.</p>
<b>Socks</b>	<p>Worn at all times.</p> <p>Socks should be solid color in black or white.</p>	<p>Colors other than solid black or solid white. Print styles other than solid color.</p> <p>Ornamentation such as beads, bells, etc.</p> <p>Dirty or odor-ridden socks.</p>
<b>Jewelry</b>	<p>Earrings should be of the small post type (no hoops). Only one (1) post earring per ear.</p> <p>Rings, necklaces, bracelets are not recommended.</p> <p>Wedding band is acceptable.</p> <p>Wristwatch with a second hand and that is water resistant is recommended.</p>	<p>More than one post earring per ear.</p> <p>Excessive rings, bracelets, necklaces.</p>
<b>Body piercings</b>	<p>Any body piercing besides the ears should not be evident.</p> <p>Tongue rings are unacceptable and are not allowed to be worn.</p>	<p>Visible or evident body piercings.</p>
<b>Tattoos</b>	<p>Any visible tattoos must be appropriately covered.</p>	<p>Visible tattoos on the body.</p>
<b>Identification badges</b>	<p>ID badges and name tags must be worn at collar/eye-level at all times.</p> <p>ID badges must be free from distracting stickers, pins, etc.</p> <p>Photo ID must be legible and visible at all times.</p>	<p>Badges worn at or below the bottom of the sternum or that are not visible to staff and patients.</p> <p>Pins, stickers and other distracting adhesives.</p> <p>Lanyards used to hold ID badges are not permitted.</p>
<b>Radiation dosimeter</b>	<p>Radiation dosimeters are to be worn during all clinical and lab assignments.</p> <p>The radiation dosimeter is to be worn outside of protective apparel with the label facing the radiation source at the level of the thyroid.</p>	<p>Not wearing a properly dated and properly placed radiation dosimeter</p>

<b>Cath lab/ Operating room attire</b>	Specific operating room scrubs, hair, face, and shoe attire will be provided by the operating room/cath lab department. The cath lab/OR attire are to be worn ONLY when physically present in the cath lab/OR. The full Jefferson clinical uniform is required at all other times.	Wearing hospital approved OR attire outside of the OR.
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<b>Body odor</b>	Must practice personal hygiene and be free of offensive odor.	Perfume, lotion, or cologne that might interfere with those who are ill or allergic to such odors or fragrances. Clothing and body with smoke odor.
<b>Hair-head</b>	Must practice personal hygiene and hair must be neat, clean, and well groomed.  Long hair must be neatly tied back away from face, neck, and shoulders to avoid patient and equipment contact.  Hair colors must be of natural, traditional tones.	Extreme trends are not acceptable.  Non-natural colors such as pink, blue, green, orange etc. are not acceptable.
<b>Hair- face</b>	Nose and ear hair must be trimmed and maintained.  Facial hair including mustache and beard must be neatly maintained.  Facial hair is not permitted when fit testing for or wearing a N95 respirator mask. Consult JOHN for further advisement.	Excessive beard or mustaches styles.
<b>Makeup</b>	Makeup should be worn conservatively.  If worn, makeup must appear professional and natural and should be conservative in styles and colors.	Frosted, bright colored eye shadow (i.e., bright green, purple, pink, etc.).  Bright or excessively dark, thick eye liner worn under the eye or on top of the eyelid.
<b>Hair accessories</b>	Solid white, black or navy blue hair bands or ties.	Ornamentation such as beads, bells, excessive bows, etc.
<b>Fingernails</b>	Nail length must be less than ¼ inches. No artificial nails. No nail polish.	
<b>Gum</b>	Chewing gum is not permitted.	

#### 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

### **TECHNICAL STANDARDS FOR AN INVASIVE CARDIOVASCULAR TECHNOLOGIST**

An Invasive Cardiovascular Technologist is typically employed in a hospital to assist physicians with cardiac catheterization procedures and provide direct patient care.

Clinical and laboratory assignments for the Invasive Cardiovascular 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. Listed below are the technical standards which all applicants are must meet in order to participate and complete the ICVT program.

- Sufficient visual acuity to read catheterization procedure prescriptions and charts, observe conditions of the patient and evaluate hemodynamic monitoring equipment.
- 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.
- Sufficient gross and fine motor coordination to respond promptly and to implement skills related to the performance of imaging exams, such as movement of patients and equipment.
- 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.
- Sufficient intellectual and emotional function to plan and implement patient care.

Examples of specific technical standards the Invasive Cardiovascular Technology student must be able to meet are:

- Lift, transfer and/or move patients from wheelchair/stretchers to procedure table
- Lift, move, reach or push equipment
- Manual dexterity and ability to bend/stretch
- Physical agility: sitting (4-7 hours), standing (4-7 hours)
- Carry 12-30 pounds (lead aprons) while working
- Distinguish colors and shades of gray
- Demonstrate effective interpersonal relation skills, including patient instruction
- Physical and mental abilities to handle moderate and frequent exposure to infectious agents (blood, urine etc.) and moderate exposure to frequent ionizing radiation
- Read and extract information from the medical chart or patient requisitions
- Explain the clinical study verbally and/or in writing
- Prepare patient for cardiac catheterization procedures

## 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 you 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 you 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, you 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 you 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 you 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 ethic 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

### **CCI Code of Ethics**

The purpose of the CCI Code of Ethics is to acknowledge the Applicant's, Candidate's and Registrant's acceptance of the responsibility and trust conferred upon it by the organization and to acknowledge that earning a CCI credential is a privilege that must be earned and maintained. The delivery of safe, competent and ethical patient care is a responsibility of the highest order. This document sets forth the Code of Ethics to be adhered to by credentialed cardiovascular technologists awarded the CCI credentials:

- Advanced Cardiac Sonographer (ACS)
- Certified Cardiographic Technician (CCT)
- Certified Rhythm Analysis Technician (CRAT)
- Registered Congenital Cardiac Sonographer (RCCS)
- Registered Cardiac Electrophysiology Specialist (RCES)
- Registered Cardiovascular Invasive Specialist (RCIS)
- Registered Cardiac Sonographer (RCS)
- Registered Phlebology Sonographer (RPhS)
- Registered Vascular Specialist (RVS).

All credentialed cardiovascular technologists awarded a CCI designation shall, in their professional activities, sustain and advance the integrity and honor of the profession by adhering to this Code of Ethics. Applicants, Candidates and Registrants who intentionally or knowingly violate any provision of the Code of Ethics will be subject to action by a peer review panel, which may result in revocation of the certification.

1. As a credentialed cardiovascular technologist / technician or Applicant / Candidate of CCI Examinations, I will place the safety, health and protection of the patient above all other interests.
2. As a credentialed cardiovascular technologist / technician or Applicant / Candidate of CCI Examinations, I will demonstrate and maintain professional competence in all aspects of patient care and within the scope of practice as defined by my employer.
3. As a credentialed cardiovascular technologist / technician or Applicant / Candidate of CCI Examinations, I will represent my credential(s) accurately, honestly, and will not attempt to maintain CCI credentials by fraud, deception or artifice.
4. As a credentialed cardiovascular technologist / technician or Applicant / Candidate of CCI Examinations, I will not knowingly assist another person or persons in obtaining or attempting to obtain or maintain CCI credentials by fraud, deception or artifice.
5. As a credentialed cardiovascular technologist / technician or Applicant / Candidate of CCI Examinations, I will uphold professional standards by adhering to defined technical protocols and diagnostic criteria established by peer review.
6. As a credentialed cardiovascular technologist / technician or Applicant / Candidate of CCI Examinations, I will represent my qualifications honestly and provide only those services for which I am qualified to perform.
7. As a credentialed cardiovascular technologist / technician or Applicant / Candidate of CCI examinations, I will defend and protect the patient's right to privacy and confidentiality, unless required to disclose such information by law.

8. As a credentialed cardiovascular technologist / technician or Applicant / Candidate of CCI Examinations, I will consistently maintain and improve professional competence through regular assessment of skills, continuing education, experience and professional training.
9. As a credentialed cardiovascular technologist / technician or Applicant / Candidate of CCI Examinations, I will accept responsibility for maintaining the credential by meeting renewal requirements and remaining in good standing with CCI.
10. As a credentialed cardiovascular technologist / technician or Applicant / Candidate of CCI Examinations, I will voluntarily report any criminal behavior resulting in a conviction of a misdemeanor or felony.
11. As a credentialed cardiovascular technologist / technician or Applicant / Candidate of CCI Examinations, I will avoid deceptive acts which misrepresent my academic or professional qualifications.
12. As a credentialed cardiovascular technologist / technician or Applicant / Candidate of CCI Examinations, I will avoid compromise of professional judgment by conflicts of interest.
13. As a credentialed cardiovascular technologist / technician or Applicant / Candidate of CCI Examinations, I will engage only in legal arrangements and practices in the health- care field.
14. As a credentialed cardiovascular technologist / technician or Applicant / Candidate of CCI Examinations, I will act in a manner free of bias with regard to religion, ethnicity, gender, age, national origin, disability, social or economic status.
15. As a credentialed cardiovascular technologist / technician or Applicant / Candidate of CCI Examinations, I understand that the certificate, logo and marks are the property of CCI and I will not misrepresent or inappropriately use the property of CCI. I agree to return the wallet card and certificate of my credentialing, upon request, to the CCI Board of Trustees.
16. As a credentialed cardiovascular technologist / technician or Applicant / Candidate of CCI Examinations, I will act in a professional manner in my correspondence and interaction with the CCI National Office.
17. As a credentialed cardiovascular technologist / technician or Applicant / Candidate of CCI Examinations, I will uphold and follow all policies and procedures required by the CCI to remain in good standing, and I will abide by CCI's Code of Ethics.  
As a CCI credential holder, candidate of CCI examinations, or applicant of CCI examinations, I shall inform CCI of any matters in the past, present, or future that may affect my capability fulfill the requirements to maintain my credential and/or comply with CCI's Code of Ethics.



## 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**

1. Regardless of whether the dosimeters are issued as required or optional, any employee who is issued any dosimeter is responsible for:
  - a. Wearing the dosimeter while on duty in those areas where there is a potential for radiation exposure.
  - b. 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).
  - c. Taking proper care of dosimeters, as described by Office of Radiation Safety instructions, to avoid damaging or contaminating the dosimeters.
  - d. Not storing dosimeters near radiation sources when not being worn.
  - e. 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).

- f. 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).
  - g. Returning all dosimeters and holders upon termination of duties with/near radiation sources.
  - h. Notifying Radiation Safety/dosimeter distributor of pending employment termination.
  - i. Otherwise wearing assigned dosimeters in accordance with any other Office of Radiation Safety instructions.
2. Failure to comply with guidelines and responsibilities listed above may result in forfeiture of (optional) dosimeters and/or disciplinary action.
  3. 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)

**Original Issue Date:** 11/01/2000

**Revision Date(s) :** 07/31/2012; 08/07/2014

**Review Date(s):** 11/08/06, 05/16/2011, 07/31/2012, 7/01/14; 08/07/2014; 06/08/15

**Responsibility for maintenance of policy:** John C. Keklak

## Appendix G

### RADIATION WORKERS WHO BECOME PREGNANT

#### PURPOSE

To minimize ionizing radiation dose to the embryo/fetus of any radiation worker, arising from the occupational radiation exposure of the worker.

To comply with pertinent Federal (NRC) and Pennsylvania regulations. [Note: Pennsylvania incorporates the NRC regulations reference.]

To conform to Regulatory Guidance as contained in US Nuclear Regulatory Commission Regulatory Guide 8.13, Revision 3, issued June 1999, regarding prenatal radiation exposure.

#### *POLICY*

Individuals whose occupational duties may include tasks that involve exposure to ionizing radiation are classified as “radiation workers”<sup>1</sup>. Female radiation workers who become pregnant have the right to voluntarily “declare” their pregnancy in accordance with Federal and Pennsylvania regulations (See 10 CFR 20.1003 Definition “declared pregnant woman”, below). It is the policy of Thomas Jefferson University/Thomas Jefferson University Hospital (TJU/TJUH) to:

Provide instruction and otherwise make information available to potentially pregnant workers about the health effects of ionizing radiation on the embryo/fetus [as required under 10 CFR 19.12],

establish procedures to ensure that the dose limits to the embryo/fetus of the declared pregnant worker are within the levels specified in Federal regulations (contained in 10 CFR 20.1208), and

establish procedures to minimize ionizing radiation doses to the embryo/fetus of any pregnant worker (declared or undeclared) in accordance with the ALARA (“as low as reasonably achievable”) principle [as required by 10 CFR 20.1101(b)].

<sup>1</sup> Note: Students whose curriculum involves clinical training in the medical uses of ionizing radiation are also considered to be “radiation workers” for the purpose of this policy.

Definitions:

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

“Declared pregnant woman” means a woman who has voluntarily informed Thomas Jefferson University or Thomas Jefferson University Hospital (through Notification to the institutional Radiation Safety Officer), in writing, of her pregnancy and the estimated date of conception (month and year only). The declaration remains in effect until either the declared pregnant woman voluntarily withdraws the declaration in writing or is no longer pregnant. [Definition derived from that in Federal regulation 10 CFR 20.1003.]

“Declaration of pregnancy” for the purpose of this Policy and related procedures, means a declaration as described under the definition of “declared pregnant woman”, which is made solely for the purpose of requiring TJU/TJUH to take any measures that may be necessary to ensure that the embryo/fetus does not receive a radiation dose due to the occupational



radiation exposure of the declared pregnant woman in excess of the limits set in 10 CFR 20.1208.

“Radiation worker” means a Jefferson employee and/or student whose assigned duties or clinical training requirements involve reasonable likelihood of exposure to ionizing radiation sources such that the individual might receive an annual total effective dose equivalent greater than 50 millirem, and/or the individual actively handles radioactive materials as part of those duties or requirements.

Procedures:

Information on radiation and pregnancy is to be incorporated into the radiation safety training provided to those whose duties may routinely involve exposure to ionizing radiation such that they are considered to be “radiation workers”.

Pregnant workers may voluntarily “declare” pregnancy by notifying the Radiation Safety Officer in writing. The information to be included in this notice must include the individual’s name, the fact that she is pregnant, the approximate (month and year only) date of conception, and the date the written statement is provided to the RSO. A recommended form letter is attached. The form letter provided in USNRC Regulatory Guide 8.13 (Instructions Regarding Prenatal Radiation Exposure) or a self-composed letter may also be used.

The woman may withdraw her declaration of pregnancy in accordance with regulations by providing a written statement to the RSO to this effect. The woman’s status will revert to that in effect prior to her initial declaration without discrimination or repercussion with respect to her job status or work environment. Withdrawal of the declaration does not preclude the woman from subsequently re-declaring her pregnancy.

Jefferson will take any necessary steps to ensure that the embryo/fetal dose limits specified in 10 CFR 20.1208 (500 millirem for the duration of the pregnancy; or no more than 50 millirem for the remainder of the pregnancy if it is found that the dose to the embryo/fetus had already exceeded 450 millirem by the time the pregnancy was declared) are not exceeded. An additional operational goal is to permit radiation doses to the embryo/fetus of no more than 50 millirem in any one month. In most cases, no change in job assignments will be necessary, since few Jefferson radiation workers ever exceed these dose levels. Where required, workers may be reassigned to other areas or duties involving lower potential for occupational radiation exposure; or may have some tasks involving radiation exposure reduced in frequency. For any declared pregnant woman whose normal job duties are unlikely to result in embryo/fetal doses above 500 mrem/gestation period any job/task reassignment will be at the discretion of the individual’s supervisor and/or department manager or director and will be subject to the availability of other personnel to perform those tasks being reassigned. [It should be emphasized that these dose limits apply only to radiation doses resulting from the occupational radiation exposure of the woman, and would not include any radiation doses arising from any medical diagnostic or therapeutic procedures performed on the woman or the embryo/fetus; nor would it apply to radiation exposure occurring from background radiation sources.]

The Radiation Safety Officer (RSO) or the Senior Health Physicist with the Office of Radiation Safety are available to provide one-to-one counseling to radiation workers who are pregnant (or who are contemplating becoming pregnant) to answer questions and provide additional information based on the woman’s specific work situation. Appointments

can be made by contacting the Radiation Safety Office.

Radiation Safety will issue any radiation dosimeters as may be warranted to track radiation doses to the embryo/fetus of the declared pregnant woman. Information from radiation dosimeter(s) that may have already been assigned to the woman would be sufficient for tracking fetal dose in most cases, except that the woman will be instructed to wear the dosimeter at the level of the abdomen (as opposed to, for example, the collar or shirt pocket area).

The Office of Radiation Safety will treat any information obtained related to an individual's pregnancy as "confidential", and such information will be shared only on a "need to know" basis (e.g., with the individual's supervisor) as may be necessary to ensure compliance with the prenatal radiation dose limits and other regulatory requirements.

A "Declaration of Pregnancy" for the purpose of invoking the dose limit requirements as specified in 10 CFR 20.1208 is for that purpose only, and is distinct and separate from any other information that a pregnant woman may provide to representatives of Thomas Jefferson University or Thomas Jefferson University Hospital related to the woman's pregnancy and its relevance to the performance of her other (i.e. not involving radiation exposure) job duties. Notice to representatives of TJU/TJUH, Inc. other than as specified in Item No. 2 above will not be considered as a formal "Declaration of Pregnancy" for radiation protection purposes.

References:

Title 10, Code of Federal Regulations; Parts 19 and 20.

USNRC Regulatory Guide 8.13, Revision 3 (June 1999), "Instruction Concerning Prenatal Radiation Exposure".

Radiation and Radioactivity, A Guide for the Radiation Worker (TJUH, Inc/TJU internal training booklet), Revision 4, September 4, 2002.

USNRC Regulatory Guide 8.29, Revision 1, February 1996, "Instruction Concerning Risks from Occupational Exposure".

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

Attachment

Attachment(s):

References and Citations:

Original Issue Date: 07/08/2004

Revision Date(s) : 03/08/2005; 05/03/2010

Review Date(s): 04/22/2011, 07/30/2012, 01/15/14, 03/30/15

Responsibility for maintenance of policy: John C. Keklak

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

## FORM LETTER FOR DECLARING PREGNANCY

(For use within Thomas Jefferson University/Thomas Jefferson University Hospital only.)

This form letter is provided for your convenience. To make your written declaration of pregnancy, you may fill in the blanks in this form letter, or you may write your own letter containing the required information. Letters should be sent in a confidential envelope or hand delivered to John C. Keklak, Radiation Safety Officer, Suite 820, 919 Walnut St. (Nevil Bldg.)

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To: John C. Keklak  
Radiation  
Safety Officer

In accordance with the NRC regulations contained in 10 CFR 20.1208, "Dose to an Embryo/Fetus", and corresponding Pennsylvania regulations, I am declaring that I am pregnant. I believe that I became pregnant in \_\_\_\_\_ (only the month and year need be provided).

I understand that the radiation dose (resulting from my occupational radiation exposure) to my embryo/fetus during my entire pregnancy will not be allowed to exceed 0.5 rem (500 millirem) (unless that dose has already been exceeded between the time of conception and submitting this letter). I also understand that meeting the lower dose limit may require a change in my job or job duties during my pregnancy. I further understand that I may revoke this declaration at any time for any reason, without fear of reprisal on the part of Jefferson.

\_\_\_\_\_  
(Your signature)

\_\_\_\_\_  
(Your name printed)

\_\_\_\_\_  
(Date of submission)

Appendix H  
**SCOPE OF PRACTICE & PRACTICE STANDARDS**

The ASRT Practice Standards for Medical Imaging and Radiation Therapy define the practice and establish general and specific criteria to determine compliance. The document includes a number of professional practice resources and can be found at

<https://www.asrt.org/main/standards-and-regulations/professional-practice/practice-standards>

Practice standards are authoritative statements established by the profession for judging the quality of practice, service and education. Professional practice constantly changes as a result of a number of factors including technological advances, market and economic forces, and statutory and regulatory mandates.

Scopes of practice delineate the parameters of practice, identify the boundaries for practice and typically are formatted as lists of tasks that are appropriate to include as part of the work of an individual who is educationally prepared and clinically competent for that profession.

Each scope of practice is limited to that which the law allows for specific education, experience and demonstrated competency. Many states have laws, licensing bodies and regulations that describe requirements for education and training and define scopes of practice for professions.

Advisory opinion statements are interpretations of the practice standards. They are intended for clarification and guidance for specific practice issues.

## Appendix I



### **Magnetic Resonance (MR) Environment Screening Form**

The MR system has a very strong magnetic field that may be hazardous to individuals entering the MR environment or MR system room if they have certain metallic, electronic, magnetic, or mechanical implants, devices, or objects. Therefore, all individuals are required to fill out this form BEFORE entering the MR environment or MR system room.

**Please indicate if you have any of the following:**

- |     |    |  |
|-----|----|--|
| Yes | No | Brain aneurysm clips/ Brain surgery  |
| Yes | No | Cardiac pacemaker  |
| Yes | No | Implanted cardioverter defibrillator (ICD)                                 |
| Yes | No | Electronic/Magnetically-activated implant or device                        |
| Yes | No | Heart surgery/Heart valve prosthesis                                       |
| Yes | No | Shunts ( <i>Spinal or intraventricular</i> )                               |
| Yes | No | Shunts/Stents/Filters/Intravascular Coil                                   |
| Yes | No | Spinal cord stimulator   |
| Yes | No | Neurostimulator/Biostimulator  |
| Yes | No | Insulin or other infusion pump   |
| Yes | No | Implanted drug infusion device   |
| Yes | No | Internal electrodes or wires   |
| Yes | No | Ear Surgery/Cochlear Implants/Stapes Prosthesis                            |
| Yes | No | Hearing aid ( <i>Remove before entering MR scan room</i> )                 |
| Yes | No | Eye Surgery/Implants/Eyelid Spring/Wires/Retinal Tack                      |
| Yes | No | Have you ever worked in a metal or machine shop                            |
| Yes | No | Injury to the eye involving metal or metal shavings                        |
| Yes | No | Artificial or prosthetic limb  |
| Yes | No | Orthopedic Pins/Screws/Rods  |
| Yes | No | Joint replacement  |
| Yes | No | Endoscopic video capsule   |
| Yes | No | Endoscopy or Colonoscopy clips   |
| Yes | No | Metal Mesh Implants/Wire Sutures/Wire Staples or Clips/Internal Electrodes |
| Yes | No | IUD, diaphragm or pessary  |
| Yes | No | Tattoo's/Permanent Make-up/Body Piercing/Patches                           |
| Yes | No | Metallic Foreign Bodies - Bullets/Shrapnel/BB                              |
| Yes | No | Any other internal/external implant or device                              |

***If you answered yes to any of the above, please explain:***

I attest that the above information is correct to the best of my knowledge. I read and understand the entire contents of this form.

Appendix J  
**PROGRAM CALENDAR 2020 – 2021**

Highlighted areas denote the program’s clarification from the JCHP academic calendar

<b>Fall Semester</b>	
Various	Orientation/Registration (Entering Class)
August 31, Monday	Welcome Date/Department Boot Camp/Orientation/ Classes begin
September 7, Monday	Labor Day Holiday
September 7, Monday	Last day to add online
September 10, Thursday	Last date to drop without a grade of “W”/ Online Registration Closes
October 3, Saturday	Last date to remove an “I” grade from Summer 2020 term
October 23, Friday	Last day for course withdrawal
November 2, Monday	On-line Registration for Spring 2021 Semester begins (anticipated)
November 25, Wednesday- November 29, Sunday	Thanksgiving break / No classes scheduled
November 30, Monday	Classes resume. Note all labs will move to online format until the end of the semester.
December 11, Friday	Classes end
December 12, Saturday	Final Examinations Begin (Clinical rotations continue)
December 18, Friday	Final Examinations End (Clinical rotations end)
TBD	Last date to file Application for Graduation
<b>Spring Semester</b>	
January 4, Monday	Classes begin
January 11, Monday	Last day to add online
January 14, Thursday	Last Day to Drop Without "W" Grade - Online Registration Closes
January 18, Monday	Martin Luther King Holiday/No classes scheduled
January 29, Friday	Last date to remove an “I” grade from previous term
March 1, Monday -March 7, Sunday	Spring Break
March 4, Thursday	Last day for course withdrawal
April 5, Monday	On-line Registration for Summer/Fall Semester begins (anticipated)
April 23, Friday	Classes end (Last day of spring clinical rotations)
April 24, Saturday	Final Examinations Begin (Clinical rotations continue)
April 30, Friday	Final Examinations End (Clinical rotations end)
TBD	Department Class Day (Graduating students excused from clinical to participate)
TBD	Commencement Exercises
<b>Summer Semester</b>	
May 3, Monday	Classes begin
May 10, Monday	Last day to add online
May 14, Friday	Last Day to Drop Without "W" Grade - Online Registration Closes
May 31, Monday	Memorial Day Holiday
June 11, Friday	Last date to remove an “I” grade from previous term
June 17, Thursday	Last Day for Course Withdrawal
July 5, Monday	Independence Day holiday observed (no classes)
August 13, Friday	Classes end (Last day of summer clinical rotations)
August 14, Saturday	Final Examinations Begin (Clinical rotations continue)
August 20, Friday	Final Examinations End (Clinical rotations end)
August 16, Monday	Clinical rotations resume for any required make-up time
August 31, Tuesday	Program officially ends

