



RAD Program Student Manual

2022-2023

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RAD PROGRAM STUDENT HANDBOOK FOR 2022-2023

Mission/Purpose

Guided by the mission of Mercy College, the philosophy of the Allied Health programs, and in compliance with the Joint Review Committee on Education in Radiologic Technology, the primary purpose is to facilitate the personal and professional development of students.

Therefore, the program provides the knowledge, skills, and attitudes needed to care for the sick and injured, produce quality diagnostic images, protect self and others from unnecessary radiation exposure, and pursue life-long learning.

Admission Requirements

To be considered for admission to the Radiologic Technology major, applicants must be admitted to Mercy College and meet the criteria listed below. Admission to the College does not guarantee admission to a major.

1. First-time College Students:
 - Earn a cumulative GPA of 2.7 on high school transcripts, and
 - Minimum ACT composite score of 20 or higher.
 - Demonstrate completion of one year of high school with a grade of at least a 2.0 (“C” not “C-”) on a 4.0 scale in each of these required courses: Algebra I, Algebra II, and Biology.
2. Transfer Students: • Earn a cumulative GPA of 2.7 or higher on a 4.0 scale at the last college attended (minimum of nine (9) credits).
3. Applicants who have met the above requirements will be invited, via email, to attend a mandatory information session. Applicants will select one of the dates listed in the email and notify the Program Chair which session the applicant will attend.
 - This information session provides applicants an opportunity to learn about the program and have questions answered. At the information session, applicants will also have the opportunity to meet individually with program faculty. Applicants may bring guests to this information session.
 - A short writing assignment will be required of each applicant.
 - The applicant will need to attend an information session prior to February 28th. If applicants cannot attend the mandatory information session by this date, they should contact the Program Chair to discuss other options.

Articulation of Transfer Credit to Radiologic Technology

Applicants meeting admissions criteria who have completed radiologic technology courses at another institution may apply for transfer credit. The courses considered for transfer must have been completed no more than two years prior to the semester in which the student enrolls in the radiologic technology sequence at Mercy College. Courses considered for transfer must be completed at an accredited institution that also has program accreditation. The following will be considered in the approval of transfer credit:

1. Similarity of course content.
2. Placement exams will be administered by the Program Chair to verify knowledge and clinical skills prior to accepting transfer credit.
3. Evaluation of clinical competency by Mercy College faculty.
4. Availability of space in the appropriate radiologic technology course.
5. Transfer credits applied must have a grade of “C” or higher (not C-“).

Application Deadlines

Applications for the RT major must be received by the RT program by January 1 for consideration. Admission to the College may be completed earlier, but no later than January 1. Prospective students have until February 28 to attend a mandatory information session or their major application may be rolled forward to the next available academic term. Admission to the RT major will be announced after March 1st.

Admission into this major is on a competitive basis. Meeting the minimum criteria does not guarantee admission into this major. Admission into Mercy College also does not guarantee admission into this major. Early application is encouraged. After the enrollment class is full, students qualified for admission will be placed on an alternate list. Students from the alternate list will be added to the summer enrollment class on a space available basis. Students who are not admitted into the major may re-apply to the major for the following year. Students may find it helpful to complete arts and sciences courses at Mercy College prior to admission to the major. All Radiologic Technology courses are taught in the daytime only.

Note – Eligibility for registration by the American Registry of Radiologic Technologists (ARRT) following graduation may be restricted if a person has been convicted of a felony or has an abuse record. Students with questions should contact the ARRT (651687-0048) to inquire about eligibility prior to beginning classes in the RT major. Students should also contact the Admissions Department prior to admission if their eligibility is in question. Fees and other costs required to make application for the ARRT examination and the Iowa Permit to Practice are the responsibility of the graduate. Information regarding these costs is provided to the student during the last semester of the major and upon request.

ASRT Program Goals & Student Learning Outcomes:

Goals:

1. Educate students to be effective communicators

Student Learning Outcomes – students will be able to

- Effectively communicate through oral methods
- Effectively communicate through written methods

2. Educate students to be effective critical thinkers and problem solvers

Student Learning Outcomes – students should be able to

- Provide appropriate care in response to emergency/trauma situations
- Accurately evaluate radiographic images

3. Educate students to be technically skilled in order to provide quality patient care while protecting patients, self, and others from unnecessary ionizing radiation.

4. Student Learning Outcomes – students will be able to

- Accurately manipulate radiographic equipment
- Accurately position patients
- Correctly set radiographic techniques
- Correctly use radiation protection methods
- Provide quality patient care

5. Encourage students in their professional development and pursuit of life-long learning

Student Learning Outcomes – students will be able to

- Develop a Personal Philosophy on professionalism
- Demonstrate professional behaviors in the clinical arena

6. Meet the needs of the community

Student Learning Outcomes

- Students entering the program will complete the program
- Graduates who take the ARRT National Board Examination within six months of graduation will pass on the first attempt.
- Graduates will be satisfied with the educational program
- Employers will hire graduates
- Of those seeking employment in radiology, graduates will be employed within six months of graduation

GRADING SYSTEM FOR THE RAD PROGRAM

(Your Liberal Arts and Sciences courses will use a different grading scale)

Grading Scale:

96% - 100% A	85% - 87% B-	72% - 73% D+
93% - 95% A-	81% - 84% C+	69% - 71% D
90% - 92% B+	78% - 80% C	64% - 68% D-
88% - 89% B	74% - 77% C-	63% or below F

Rationale for Clinical Education

Graduates of the ASRT degree program are knowledgeable and skillful in the performance of radiographic imaging procedures. Graduates understand the importance of obtaining diagnostic images while demonstrating Mercy College’s Core Values of respect, integrity, compassion, and excellence in interactions with patient, patient’s family, and the health care team. Professional behaviors are expected at all times.

Clinical Obligations & Requirements

The following chart demonstrates clinical sites students attend during the program. *The chart is a guideline and clinical rotations may change due to implementation of a new site, staffing, availability of exams, etc – students are notified in advance of any changes.* Clinical sites are in Des Moines, Urbandale, Ankeny, Clive, Pleasant Hill, West Des Moines and Indianola.

- Clinical rotations are scheduled by the clinical coordinator to assure all students receive clinical experiences in a fair and equitable manner.
- Schedules are provided to student prior to 1st day of clinical.
- One or two week rotations may be scheduled at a specific site – published schedules provide this information each semester.

ROTATIONS*	RAD111	RAD121	RAD131	RAD211	RAD221
Mercy Medical Center – Main Campus					
Patient Transport	X				
Portables	X	X		X	X
P1 Rotation			X		
P2 Rotation			X		
Room 3	X				
Room 4	X	X	X	X	X
Room 5	X	X	X	X	X
Room 6	X	X	X	X	X
Rooms 7	X	X	X	X	X
Surgery	X	X	X	X	X

CT				X	
Special Procedures					X
Cardiac Cath Lab				X	
MRI				X	
Ultrasound; Nuc Med; Rad Therapy **				X	
ROTATIONS*	RAD111	RAD121	RAD131	RAD211	RAD221
PACS	X				
Trauma – weekend rotation			X	X	X
Mercy Pain Center		X		X	
Off-sites					
Mercy North Clinic	X	X	X		
Mercy South Clinic	X		X		X
Mercy West Clinic	X		X	X	
Mercy Urbandale Clinic	X	X			
Iowa Arthritis Center		X	X	X	X
Iowa Orthopedic Clinic		X	X	X	X
Mercy Indianola Clinic	X	X		X	
Mercy East Clinic		X			
Mercy West Lakes Hospital	X	X	X	X	X

Clinical requirements are designed to help students be successful in the program and transition to a graduate who exhibits professionalism and clinical skills. Students are expected to:

1. Attend all clinical assignments
2. Students must provide their own transportation to the clinical assignments
3. Meet clinical standards of the program
4. Comply with all Mercy College health policies
5. Gain knowledge of equipment and procedures performed.
6. Understand staff radiographers determine student involvement with patient care and that patient flow is the priority
7. Understand staff retains the right to step in and take over an examination based on student performance and/or patient condition. Student is expected to demonstrate professional behaviors in this situation. Questions must be resolved after the patient has left the room.
8. Use protective devices and universal precautions according to program and hospital policies
9. Complete all clinical competency objectives on or before published deadlines
10. Turn in evaluation forms on or before program deadlines
11. Turn in “Student Daily Achievement Records” Orange Sheets-these are to be turned in at a minimum of every 2 weeks. Each exam recorded needs to have an x-ray number as well as participation level marked. All exams also need to be logged into trajecsyst.
12. Complete satisfactory rotations through assigned clinical areas
13. Maintain satisfactory clinical evaluations completed by staff radiographers and instructors.
14. Accurately perform routine and non-routine examinations based on competency level.

15. Demonstrate professionalism at all times with patients, patients' families, and staff.
16. Use appropriate verbal and/or non-verbal communication with patients, patients' families, and staff.
17. Cope and function during stressful situations.
18. Retain proficiency (competency) in exam performance
19. Comply with ASRT Code of Ethics for the profession of Radiologic Technology

The ASRT program will schedule students only in rotations/exams where there is no discrimination or restrictions (i.e., both male and female students must have the same opportunities).

Clinical Expectations - Students

- Students are expected to treat preceptors, staff radiographers, patients, patients' families, the healthcare team, and any other personnel involved in the students' education with respect and courtesy.
- Clinical time is scheduled for students to have hands-on learning for the ASRT program. Students should not bring in assignments or textbooks. Students may bring flashcards or pocket sized notebooks to study during down time in the clinical setting. Any study material must pertain to radiology classes. Students are expected to be performing examinations, stocking, cleaning, or practicing positioning/equipment use with each other during down time.
- Trajecsys: It is a program expectation that students are not on Trajecsys when their clinical area is busy and they could be performing examinations. Students using Trajecsys when they should be performing examinations will lose professionalism points. Refer to policy in this manual.
- Program clinical competencies (final competency exams: FCE's), required additional examinations, and required clinical rotations) must be successfully completed prior to the student being certified for graduation. In the event that a student is unable to complete the competencies in the regular academic schedule, his/her time in the program will be lengthened until these competencies are met. Clinical makeup fees may be required.
- Students are required to have the Associate of Science in Radiologic Technology Manual and technique book during clinical rotations. This manual must be kept in the designated areas. Failure to have these in ALL rotations (i.e. including MRI) will result in the student losing professionalism points. Refer to policy in this manual. Failure to comply with these guidelines the student will be disciplined according to the Professionalism Policy.
- Manuals should not be stored in the clinical setting at the end of a shift.
- Manuals are reviewed by instructors on an as needed basis.

Lead Markers:

Using lead markers to document who took a radiograph is a legal requirement for radiographers. The following guidelines apply:

- Students are **required to have appropriate markers in clinical rotations.**

- In the event student does not have markers because they have been lost, student will be required to leave the clinical rotation until new markers are ordered and paid for.
- Students will be provided with 2 sets of markers prior to clinical practicum I. If additional markers are needed, the student must order these to match the markers provided. Any questions on ordering please ask the clinical coordinator.

Dress Code for the clinical setting:

Uniforms may be purchased at Valley West Uniform Shop. The following guidelines are specific to the RAD program:

- a) Students are required to wear official uniform designated by Mercy College and the ASRT program, students must also wear their student ID badge.
- b) Shoes must be clean, white, and soft-soled. Minimal colored markings are acceptable
- c) No sweaters or jackets of any style or color are allowed in the clinical area with the exception of a lab coat bought at Valley West Uniform, they are the same color as your uniform top and will have the Mercy College emblem on it.
- d) Nail polish must be clear or neutral in color; nails must be trimmed, short and well groomed
- e) Jewelry should be minimal. Earrings are to be small and conservative. No dangling jewelry is allowed. Students are limited to no more than 2 earrings/ear. No other piercing jewelry or adornments (i.e. ear, tongue, eyebrow, lip, etc.) are allowed. Gauges are not allowed.
- f) For the patient's sake, students are requested not to wear cologne on clinical days
- g) Long hair (hair that falls below the shoulders) must be controlled and worn so hair will not fall below collar or fall over shoulders at any time while on clinical assignments
- h) Short or medium length hair (hair that does not fall below the shoulders) must be worn in a fashion that hair will not fall in face or below collar
- i) Hairstyles must be clean, professional in appearance, and a natural color (i.e. pink, green, orange are not natural colors).
- j) A conservative amount of make-up may be worn
- k) Breath must be free of any offensive odors
- l) Students who smoke need to be sure their clothing and breath do not smell of smoke – instructors reserve the right to send a student out of the clinical site to change. Student will lose STO hours.
- m) Male students must be clean shaven or maintain a clean and trimmed beard/mustache. Facial hair must be completely covered by a “surgeon hood” during your surgery rotation
- n) Mercy Medical Center scrubs are NOT allowed unless assigned to surgery, special procedures, trauma rotation, or room 5. These scrubs are not to be worn outside the Medical Center
- o) White or black shirts may be worn under the student uniform top. No visible wording is allowed. Only short sleeved shirts are allowed under surgery scrubs in surgery department. If cold while in surgery, a surgery lab coat may be worn
- p) All tattoos must be covered during clinical hours
- q) Uniform pants must be appropriately hemmed (i.e. not frayed and/or taped) and cannot drag on the floor
- r) Students at Mercy West Lakes are to arrive in the college uniform. If there is a surgery case or another incident where scrubs should be worn, the manager and/or preceptor will inform the student. Only then is student allowed to wear surgery scrubs for that procedure, and will change back into their student uniform after the procedure is completed.

Illness

Student is NOT allowed to be in clinical or classroom when the following conditions exist:

- a. A fever of greater than 100 degrees F.
- b. presence of any contagious disease (i.e. conjunctivitis or a cold sore)
- c. the use of antibiotics for less than 24 hours
- d. the use of medications which would impair the student's thinking ability
- e. student cannot comply with program's clinical standards

Clinical Supervision

Direct/Indirect Supervision Policy

Students are always supervised during clinical rotations. The level of supervision depends on competency level and the examination being performed.

The ratio of student to radiographer during clinical rotations shall be 1:1 in compliance with JRCERT Standards.

❖ JRCERT definition of Direct Supervision:

Assures that medial imaging procedures are performed under the direct supervision of a qualified radiographer until a radiography student achieves competency. The

ASRT

program defines "qualified radiographer" as a technologist registered by ARRT with a current IA General Permit to Practice.

Students must be directly supervised, at all times in the program, by a qualified radiographer for:

- ❖ **exams performed prior to passing the FCE**
- ❖ **repeat radiographs**
- ❖ **surgery cases**
- ❖ **mobile/portable examinations**
- ❖ **fluoroscopy examinations**

❖ JRCERT definition of Indirect Supervision:

Supervision provided by a qualified radiographer immediately available to assist students regardless of the level of student achievement. "Immediately available" is interpreted as the physical presence of a qualified radiographer adjacent to the room or location where a radiographic procedure is being performed. This availability applies to all areas where ionizing radiation equipment is in use on patients.

The ASRT program defines "qualified radiographer" as an ARRT registered radiologic radiographer with a current IA General Permit to Practice.

Graduation Requirements for the RAD program

Students earning an ASRT Degree must complete all of the following:

- Successfully complete all arts and sciences and professional education courses in the curriculum plan with a grade of “C” or higher (not “C-”).
- Complete the Core Curriculum requirements;
- Complete requirements for the major;
- Communication Competencies (Oral and Written);
- Complete Critical Thinking Competency;
- Complete the Service Learning Hours
- Successfully complete all skill competency exams.
- In order for the College to certify to a federal, state or local government agency or professional licensing organization that a student has completed the degree, the student must meet all graduation requirements, complete all financial aid entrance and exit counseling requirements and fully satisfy all financial obligations owed to the College.

Students must complete at least 15 credits at Mercy College to meet the residency requirement for an associate degree along with all Major and Minor Requirements.

Note: Students will not receive their diploma until all graduation requirements and financial obligations are successfully completed.

Pregnancy Policy & Procedure

The MCHS Radiography Program has adopted the following policy in regard to activities of pregnant radiography students in the clinical affiliate setting.

1. The pregnant student is strongly encouraged to declare herself pregnant as early in the pregnancy as possible. Voluntary declaration must be made to the program director and clinical coordinator jointly. The declaration will also be made in writing, using a form supplied by the program director. The pregnant student may also rescind a declaration of pregnancy at any time, this also needs to be in writing.
2. The declared pregnant student will cooperate with the observation of proper radiation safety practices.
3. Adoption of the guidelines for occupationally exposed pregnant students identified in the NCRP Report "During the entire gestation period, the absorbed dose equivalent to the fetus from occupational exposure of the expectant mother should not exceed 5.0mSv(500 millirem)." The student will be provided, free of charge, a second dosimeter to be worn at the abdomen.

4. Upon written request of the pregnant student, the pregnant student radiographer is expected to meet all other objectives and clinical competencies of each radiography course. Any time missed from clinical education or classes will be subject to the attendance policy for that course.

5. The student also has the option of continuing in the program without modifications.

In addition upon declaration of pregnancy, the Compliance Officer or designee will:

- Discuss radiation safety
- Provide regulatory guidelines
- Review past radiation exposure and the accumulation through gestation
- Calculate fetal dose when necessary or upon request

RAD 101 is a foundations class that the students have before going to clinical. In this class this policy is discussed in detail and the practice of ALARA is discussed. Also, each semester this is reviewed and discussed.

Radiation Safety/Protection Policy

The Iowa Department of Public Health (IDPH) requires that an employee is considered a radiation worker if their dose exceeds 10% of the MPD (maximum permissible dose) of 5000 mrem/year. In accordance with state guidelines for maintaining radiation exposure “As Low As Reasonably Achievable (ALARA)”, Mercy College, in collaboration with Mercy Medical Center, strives to assure student exposure during clinical rotations stays under 5000 mrem/year. The action levels established in Mercy Medical Center’s ALARA program is 400 mrem/quarter which is below the state regulated limit of 1250 mrem/quarter. The Allied Health program chairs provide students with information about protecting themselves, patients, patient’s families, and the health care team. Information is provided prior to assignments to clinical rotations. Students in Radiologic Technology, and other Allied Health programs, if applicable, receive and are required to wear a radiation monitoring badge(s) at all times when at clinical rotations. The badge(s) is to be worn as instructed and will be provided by the College at no cost to the student.

- The Radiation Safety Officer (RSO) reviews radiation monitoring badge reports.
- If a student’s exposure exceeds 400 mrem in one calendar quarter, he/she receives a letter, is counseled, receives a second monitoring badge, and exposure is recorded by the RSO.
- Monthly radiation monitoring badge reports are delivered to the program chair. The report is then taken to class by the program chair or RAD faculty for the students to review their individual report. Each student will be given their individual report, the chair or instructor will review how to interpret the report. After all questions have been answered, the student will sign the current badge report.
- MercyOne has a Radiation Safety Committee, this committee meets on a quarterly basis. The RAD Program Chair is a member of this committee.
- Coursework covers information on radiation monitoring devices and radiation protection in greater detail.

To assure student and patient safety:

- Students must not hold image receptors during any radiographic procedure.
- Students should not hold patients during any radiographic procedure when an immobilization method is the appropriate standard of care.
- While making exposures, the door to the room must be closed.
- Students are encouraged to use all imaging aids available to assist the patient to maintain or hold the position necessary for the projection.
- In the rare occasion that these devices would not achieve optimal results, it is the responsibility of the radiographer to find an individual to assist in holding.
- The health physicist reviews radiation monitoring badge reports. In the event a student's badge report exceeds the Iowa Department of Public Health safety levels, as adopted by the Radiation Safety Committee, the student receives a letter from the committee chair documenting the exposure. Depending on the dose level, the student may be required to wear an additional radiation monitoring badge.
- Coursework covers information on radiation monitoring devices and radiation protection in greater detail.
- Gonadal shielding-Based on the recent research pertaining to the use of gonadal shielding during abdominal and pelvic radiography and the longstanding practice in radiography to only shield in instances in which diagnostic quality will not be compromised, the JRCERT has concluded that routine use of gonadal shielding for abdominopelvic radiography exams should not be standard practice for clinical radiography students when the use of such could interfere with the diagnostic quality of the exam and may result in the risk of a repeat exposure.

Mercy College of Health Sciences is fully accredited by the:
Joint Review Committee on Education in Radiologic Technology

20 North Wacker Drive, Suite 2850

Chicago, IL 60606-3182

Telephone: 312-704-5300

www.jrcert.org

Students retain the right to contact the JRCERT with questions, issues, or concerns. Note: The JRCERT does not respond to anonymous letters or correspondence; however, the student's confidentiality is assured. Students may contact the JRCERT for more information.