TRINITY HEALTH

Trinity Health Radiologic Technology Program

Policy Manual, Clinical Education Plan and JRCERT Standards

Revised 2019

Adopted: 1996

Reviewed: 1997, 98, 2001, 02, 03, 04, 05, 07, 08

Revised: 1999, 2000, 06, 09, 10, 11, 12, 13, 15, 16, 17, 18, 19

Approved: Advisory Committee 6/1996, 7/1999, 6/2002, 7/2005, 6/2010, 3/2015, 6/2019

Policy and Procedure Agreement

This Manual is intended to be a description of the policies, academic processes, degree requirements and course offerings in effect for the 2019-2020 academic year for our program. The Trinity Health Radiologic Technology Program reserves the right to change any of the policies and procedures described in this Policy Manual as deemed necessary. Students shall read the Policy Manual, shall have the opportunities to ask questions and have their questions answered. Students are required to comply with the policies, rules and regulations of the Trinity Health Radiologic Technology Program and Trinity Health. Upon completion of the Policy Manual review, the student will read and sign a form stating they received a copy of, read and had opportunity to seek clarifications on any policies, procedures or standards. This form will become a part of the student's permanent file.

Table of Contents

Career of Radiologic Technology

Radiologic Technology is a science combining advanced technology and human compassion. Radiologic Technologists (radiographers) use their knowledge of physics and human anatomy to create permanent medical images to diagnose disease. The radiologic technologist is qualified to provide patient services using various types of imaging equipment. The radiologic technologist works under the direction of a Radiologist — a medical physician with extensive training in performing radiologic procedures and interpreting medical images. This is a profession which requires a dependable personality with a mature, caring nature and an ability to exercise independent judgment. For additional information on career opportunities, explore the ASRT website at: https://www.asrt.org/main/careers/careers-in-radiologic-technology

Trinity Health

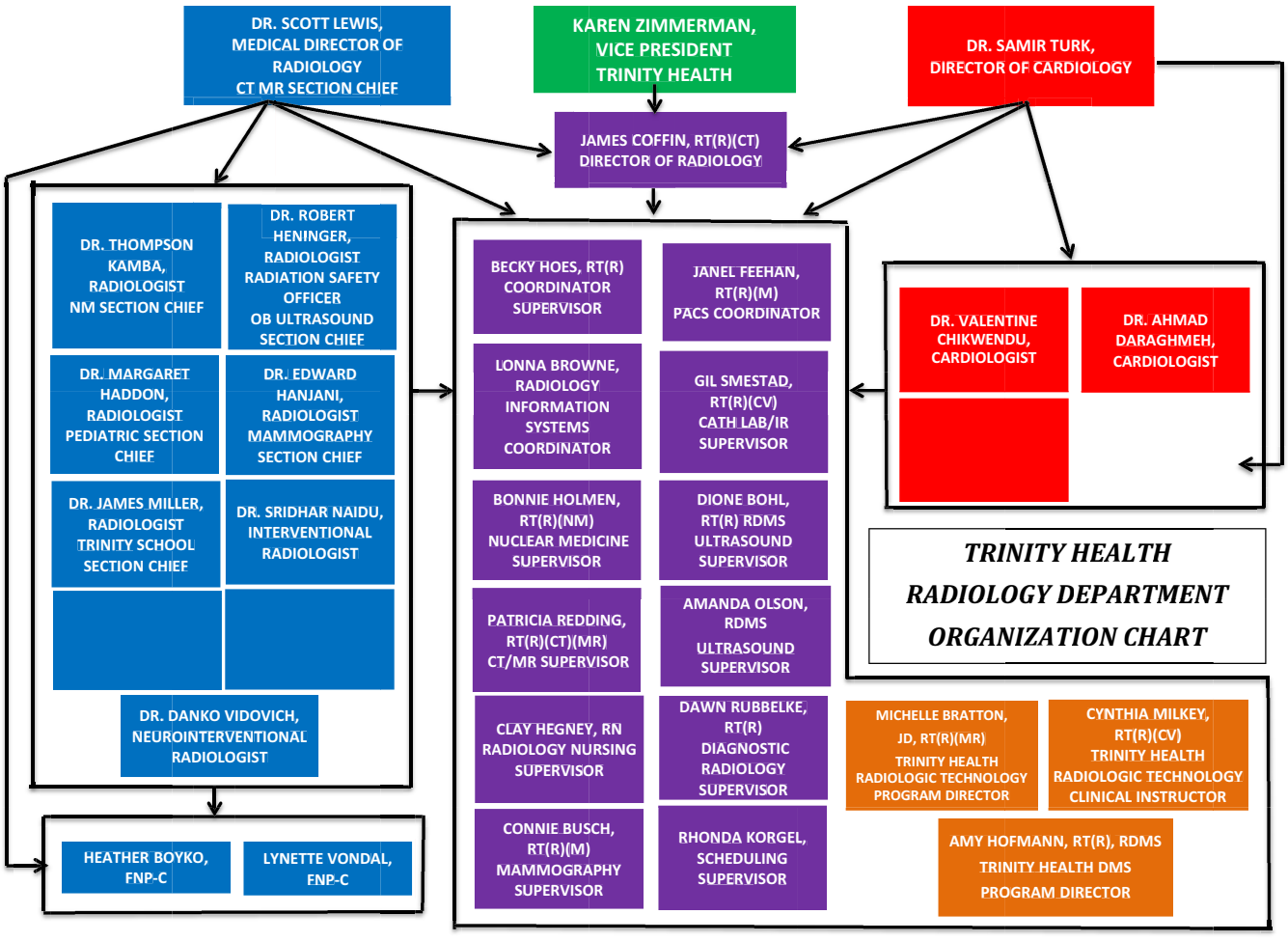
Founded in 1922, Trinity Health is a not-for-profit, integrated healthcare system serving North Dakota and Eastern Montana. With three hospitals, 15 clinics, two nursing homes and a regional eyecare network, Trinity Health provides comprehensive, leading-edge care to Minot and the surrounding region.

Trinity's primary hospital campus is accredited by The Joint Commission (TJC) and the region's only Level II Trauma Center. Trinity offers a state-of-art cancer care center, comprehensive heart services, including open heart surgery, and advanced neurosurgical care.

Trinity Health is staffed by more than 2,900 physicians, nurses and other healthcare professionals. Trinity Medical Group is a regional network of more than 150 physicians and allied health professionals representing over 40 primary care and specialty services.

A teaching hospital, Trinity sponsors the University of North Dakota School of Medicine residency program as well as the Trinity Health Radiologic Technology Program.

Organizational Chart



Trinity Health Radiologic Technology Program

The school of radiologic technology has an excellent reputation of graduating professional Radiologic Technologists (Radiographers) of high academic excellence and above average entry level technical skills. Our graduates typically score above the 90th percentile on the American Registry of Radiologic Technology (ARRT) national registry exam to become certified Radiographers.

The school is a two-year certificate program accredited by the Joint Review Commission on Education in Radiologic Technology (JRCERT), 20 N. Wacker Drive, Suite 2850, Chicago, IL 60606-3182, 312-704-5300, (website: www.jrcert.org) (e-mail: jrcert@mail.idt.net). For more information contact the Program Director at phone number: 701-857-2316 or mailing address: Trinity Health Radiologic Technology Program, PO Box 5020, Minot, ND 58702-5020. Additional Information can be found on the program website, trinityhealth.org/radiology_school

The school accepts up to 6 students each year. Classes begin in June and concludes with graduation in May. The 23 month Program operates on a schedule of three semesters per year. The school week runs from Sunday through Saturday. The student will complete six consecutive semesters during their internship, including a limited number of weekend and evening clinical rotations. Time spent in weekend and evening assignment rotations will not exceed 25% of the students total clinical clock hours.

The Trinity Health Radiologic Technology Program is an outcome-based educational program with the primary focus on competency achieved through a mastery learning system. Integration of classroom and clinical education is also an important element to the success of the school and its graduates. The student benefits from hospital and clinic radiology patient care environments, state-of-art imaging equipment, highly skilled staff of Registered Technologists, a small enrollment and educators with years of clinical and teaching experience. The clinical experience is designed to maximize patient contact in performance of radiography procedures. All students are supervised while in their clinical training by ARRT registered and JRCERT approved Clinical Instructors. Upon completion of this program, graduates will be eligible to take the ARRT registry exam and upon successful completion, be recognized as professional, competent entry level Radiographers.

Mission Statement, Goals and Student Learning Outcomes

MISSION STATEMENT:

The mission of the Trinity Health Radiologic Technology Program is to provide a comprehensive, quality education in the art and science of radiologic technology. The program strives to prepare service-oriented, knowledgeable entry-level radiographers who demonstrate qualities of excellence in critical thinking, professionalism, patient care, safety and ethical behavior in serving their patients, healthcare community and the profession.

GOALS and STUDENT LEARNING OUTCOMES (SLO's):

Goal 1: To graduate students who possess effective verbal and written communication skills.
SLO 1.1: Students will demonstrate effective patient communication skills.
SLO 1.2: Students will demonstrate effective written and verbal communication skills

Goal 2: To graduate students who can apply critical thinking skills to professional practice.
SLO 2.1: Students will exhibit necessary critical thinking skills in the positioning and performance of patient exams.
SLO 2.2: Students will demonstrate the ability to critically evaluate completed radiographs.

Goal 3: To graduate students who are clinically competent entry level radiographers.
SLO 3.1: Students will produce images exhibiting accurate positioning and acceptable radiographic quality.
SLO 3.2: To graduate students with effective radiation protection practices for self, patients and healthcare team.

Goal 4: To graduate students who possess ethical and professional behaviors necessary for an entry level radiographer.
SLO 4.1: Students will demonstrate professionalism and ethical behavior.
SLO 4.2: Students will demonstrate professionalism with the healthcare team.

ACHIEVEMENT OF GOALS:

To accomplish these goals we believe correlation of didactic and clinical education must exist. We believe that through a mastery and competency based education, the student will learn to function decisively, independently and correctly.

The following ***COMPETENCIES*** have been established as essential and minimum for the student to function adequately in a modern health care system. These competencies also serve a multifold purpose as a working structural model for our program.

This includes but is not limited to the following purposes:

1. serve as a curriculum guide
2. serve as a guideline to develop performance indicators for clinical and didactic courses
3. serve as criteria for measuring student learning outcomes, through testing and grading

Competency #1

Apply knowledge of the principles of x-ray production and appropriate usage of radiation production equipment to provide safety for the patient, themselves and other health care professionals.

- Explain x-ray production.
- Identify the properties of x-ray.
- Distinguish between electromagnetic radiation and particulate radiation.
- Define types of radioactivity.
- Utilize and understand the fundamental units of radiation.
- Explain x-ray interactions with matter.
- Explain the biologic effects of radiation to the human body.
- Explain the necessity and importance of radiation protection for the patient, self and others.

- Identify factors that will result in an increase or decrease in radiation exposure to patient and self.
- Apply methods of radiation protection in the clinical setting which will result in minimal exposure to self, patient and others while preserving the quality of radiographic exam.
- State the National Council on Radiation Protection guidelines and dose equivalence limits.
- Demonstrate proper and safe manipulation of x-ray equipment in the clinical setting.
- Apply knowledge of electrodynamics to the x-ray circuit.

Competency #2

Apply knowledge of anatomy, physiology, pathology and positioning to accurately demonstrate structures for radiologic exams.

- Define and utilize medical terminology.
- Identify the anatomy of the body systems.
- Understand physiology as it relates to radiography.
- Define pathologic conditions and identify them radiographically.
- Understand and utilize radiographic positioning terminology and landmarks.
- Explain and demonstrate the radiographic positions and projections necessary to demonstrate and evaluate body anatomy and pathology, radiographically.
- Exercise discretion and judgement, in clinical situations, to utilize alternate positioning and examination methods to better demonstrate anatomic structures when limited by the condition of patient.
- Make appropriate adjustments in positioning and procedures to perform pediatric examinations.
- Identify radiologic contrast medias, their usages and indications.
- Select, prepare, assist and administer appropriate contrast media to patients.

Competency #3

Determine proper exposure factors which will achieve optimum radiographic quality.

- Apply knowledge of mathematical formulas to calculate and adjust exposure factors to compensate for equipment and technique changes.
- Apply knowledge to determine the effects of altering quality and quantity of the x-ray beam on the radiographic image.
- Understand the primary and secondary influences on radiographic quality and how they alter radiographic quality.
- Differentiate between additive and destructive pathologies and how to vary exposure technique appropriately.
- Apply knowledge and understanding of how body habitus affects exposure techniques and equipment utilized.
- Adjust necessary exposure factors for pediatric radiography.
- Understand and utilize proper exposure factors for patient protection.

Competency #4

Examine radiographic images for the purpose of making judgmental decisions concerning positioning, technical factors, pathology factors and radiation protection aspects.

- Utilize evaluation criteria to identify if radiographic image includes all anatomical structures necessary.
- Utilize evaluation criteria to determine between acceptable and unacceptable patient positioning to demonstrate necessary anatomy.
- Discriminate between acceptable and unacceptable exposure technique and exposure indices on radiographic image.
- Understand and demonstrate the ability to make the proper changes required to successfully repeat an unsatisfactory image.
- Identify proper legal information on a radiographic image (markers, name, date, etc.)
- Perform appropriate image manipulation techniques before transferring and saving the images.

Competency #5

Provide appropriate patient care.

- Understand the importance of providing for the physical and psychological needs of patients in all age groups and various ethnic backgrounds.
- Understand the importance of, and provide for, proper patient/technologist communication.
- Provide appropriate patient education.
- Demonstrate an understanding of the functions of the various specialty areas of radiology.
- Understand and practice the Code of Ethics for the Profession of Radiologic Technology and the "Principles of Professional conduct for the Radiologic Technologist".
- Demonstrate proper body mechanics for maximum patient safety and personal safety.
- Apply and demonstrate the consistent use of Standard Precautions, on all patients.
- Apply and demonstrate the principles of aseptic technique.
- Apply and demonstrate the principles of sterile technique.
- Recognize emergency situations and demonstrate appropriate and necessary response.
- Become CPR certified.

Competency #6

Understand and apply human interactions in the medical domain.

- Understand the organizational structure of the hospital, clinical sites and department of radiology.
- Understand the function of a radiographer/radiologic technologist in the medical domain.
- Apply principles of appropriate communications in interactions with all personnel.

Admission Requirements

Trinity Health Radiologic Technology Program subscribes to the principles and laws of the state of North Dakota and the federal government pertaining to civil rights and equal opportunity. Trinity Health Radiologic Technology Program policy prohibits discrimination on the basis of race, gender, religion, age, color, creed, national or ethnic origin, marital status or disability in the recruitment and admission of students and the employment of faculty, staff and students and in the operation of all program activities and services. Evidence of practice which are inconsistent with this policy should be reported to the Program Director and/or Human Resource Director.

The Joint Review Committee on Education in Radiologic Technology (JRCERT) has approved the Trinity Health Radiologic Technology Program for up to 6 students per year, however, the school reserves the right to admit only those applicants who meet established minimum requirements for age, education, physical and personal skills. The program does not accept transfer students from other clinical radiography programs, accommodate part time students nor offer advance placement. The school does accept transfer credits for college coursework in order to assess whether an applicant has fulfilled its prerequisites for admission.

Please note that if accepted into this program, a criminal background check will be conducted on the student as part of processing the student into Trinity Health's human resource system.

MINIMUM REQUIREMENTS

Age: Applicants must be at least 18 years of age reflective of the National Council on Radiation Protection and Measurements (NCRP) effective radiation dose limits regarding occupational exposure in persons younger than 18.

Education: The American Registry in Radiologic Technology (ARRT), the only certifying agency in the United States, requires candidates wishing to take the certification exam in radiography to also possess an associate or baccalaureate degree from a regionally accredited university and identify such on their certification application. In accordance with this, applicants to this program must demonstrate satisfactory completion of post-secondary coursework from an accredited institution in the following to be considered for admission:

- 1 semester advanced level math (College Algebra, Precalculus, or Statistics)
- 2 semesters/1 full year of Anatomy and Physiology
- 2 semesters/1 full year of Physics
- 1 semester of Chemistry or Biology
- 1 semester of Medical Terminology
- 1 semester of Information Systems or Computer Science
- 1 semester of social/behavioral science course (Psychology, Sociology, Ethics)
- 1 semester of Oral Communication/Speech
- 1 semester of English Composition

GPA: The applicant must achieve a minimum cumulative college grade point average of 2.75 at the time of application.

Technical: Applicants must possess the following skills to participate in the program and meet the physical demands of a radiologic technologist:

- Fine and gross motor coordination to respond promptly and manipulate equipment
- Verbal and written communication skills to clearly, promptly and effectively communicate in English
- Hearing skills to assess patient needs and communicate effectively with other healthcare team members
- Visual acuity to observe patients, manipulate equipment and evaluate radiographic image quality
- Ability to accomplish moderate lifting at a minimum of thirty pounds to ensure patient safety
- Satisfactory intellectual and emotional functions to exercise independent judgement and discretion in the safe technical performance of medical imaging procedures

These specifications will be documented by the applicant during the application process. All applicants who are accepted into the program will also be required to present documentation that they possess these physical requirements by a Licensed Independent Practitioner on a Physical Fitness form provided by the school.

Personal: Applicants must be of good moral and ethical character to include ability to:

- reason and exercise good independent judgement
- exhibit responsible, accountable and professional behaviors
- work under stressful conditions
- independently organize a work plan and meet deadlines
- communicate effectively with patients and healthcare team members
- exhibit professional discretion with confidential information
- attest to integrity of academic performance

These personal requirements will be assessed by application documents, personal references and personal interview. Additionally, the American Registry of Radiologic Technologists (ARRT) requires all applicants for certification to affirm that they have been and remain in compliance with the Code of Ethics, Rules of Ethics as spelled out in the Standards of Ethics. The ARRT establishes and enforces Rules of Ethics that require all applicants for certification to be of good moral character. Generally, the conviction of a crime or felony involving moral turpitude may indicate lack of moral character and render the person ineligible to take the certification exam. Violations of academic honor codes and suspension or dismissal from an educational program may also render an applicant ineligible to take the ARRT certification exam. While conviction of a crime or academic sanction is not an absolute ban to school admission, it may depend on the ARRT decision of eligibility. Applicants that have concerns regarding ARRT eligibility may contact the ARRT directly for more information and guidance at:

ARRT
1255 Northland Drive
St. Paul, MN 55120
www.arrt.org

APPLICATION PROCESS

The annual application deadline is January 1st for the subsequent class which will start the following June. Information and all application forms (Application Form and Checklist, Reference Form, Code of Ethics and Honor Form, Technical Specifications Form) can be found on the website www.trinityhealth.org/radiology_school or by contacting program officials at Trinity Health Radiologic Technology Program, PO Box 5020, Minot, ND, 58701; phone 701-857-2316; email michelle.bratton@trinityhealth.org

Steps for application:

1. Return by email/fax/mail to the address above:
   a. The completed and signed Application Form,
   b. The signed Technical Specifications Form, and
   c. The signed Codes of Ethics and Honor Form;
2. Mail the non-refundable application fee for $35.00 (check or money order made out to Trinity Health);
3. **Applicant themselves must return 3 Reference Forms** (found under the Application Forms link or upon request from program official) carefully following these instructions (which also appear on the application form):
   a. References should not be relatives, but someone who knows you well and can give honest information about you. One should be an *employment* reference, a second should be an *academic* reference and a third should be a *personal* reference.
   b. Review the Applicant's Option to Waive on the Reference Form and determine whether to sign the waiver before giving the reference forms to your chosen references.
   c. Give the Reference Form to your reference, asking them to complete it, seal it in an envelope with their signature across the seal and return to you. **Applicants must mail the references directly to the address above**. *Your application will not be considered complete if all 3 References are not returned as set forth.*

4. **Applicants must order official college transcripts, pick them up and mail them to the address above.** *Your application will not be considered complete if your official transcripts are not returned as set forth.* If you have coursework that is not complete prior to the application deadline, please request the latest transcript along with your note detailing the coursework you are completing.
5. **Applicants must order and request official high school transcripts** be sent to the address above.

All completed applications received by the due date with fee will be reviewed. Applications will be scored on the basis of completed college coursework transcripts and references received. Candidates meeting minimum requirements will be contacted via email or phone to schedule a date and time for personal interview at Trinity Health in Minot. Interviews are scheduled late January to early February.

ADMISSIONS COMMITTEE PROCEDURES/SCORING PROCESS

Applicants are offered positions in the program on a scored basis detailed below. The Admissions Committee will consist of at a minimum the Program Director, Clinical Instructor(s). A senior student will also sit in on the applicant interviews, however the student will not be scoring the applicants or be involved in the final ranking of the applicants for admission.

1. ACADEMIC EVALUATION:

An applicant must have achieved a minimum college GPA of 2.75 to qualify for admission to the program. If an applicant's transcript reflects a lower GPA, the applicant will be notified that they are not eligible for admission.

For eligible applicants:

Prior to the interview, an applicant's college/university transcripts are reviewed and coursework is pre-scored. Applicants are assigned a point value for the 11 academic courses (our prerequisites) completed or in the process of completion, as documented by their college transcripts. Coursework included in our optional coursework are also scored. Course points are determined by multiplying the number of course credits by the grade achieved (see details in ***Academic Scoring below***). Range 0-150 points

2. REFERENCES EVALUATION:

Prior to the interview, an applicant's personal references are pre-scored by the Program Director and Clinical Instructor and awarded 0-4 points per reference. Range 0-24 points.

3. HEALTHCARE LICENSURE/WORK EXPERIENCE AND VOLUNTEERING:

Applicants are awarded points for volunteer work, previous healthcare work experience in patient care areas and/or for documented healthcare/licensure (CPR/BLS certification does not quality). If known, this area is pre-scored as well, but can also be scored if information is obtained from the applicant during the interview process. Points awarded: 1-3 points per year for part-time work, full-time work with direct patient contact based on how long the applicant did such work; 0.5-3 points for meaningful volunteer work; and 1-3 points for healthcare licensure/certification (some examples are CNA, LPN, EMT-proof of licensure is required) (max of 3 points) Range 0-9 points.

4. APPLICANT PROFILE QUESTIONNAIRE:

The applicant is asked to write 2 essays during the interview process in the Applicant Profile Questionnaire. The Program Director and Clinical Instructor review and award up to 12 points for the applicant essays, these totals are averaged together to reach an interview score for the applicant. The essays serve to evaluate the applicant's ability to clearly communicate in written form, how they organize their thoughts, and whether they appreciate basic mechanics, grammar and handwriting. The essays also provide valuable insight to an applicant's background. Range 0-12 points.

5. BASIC MATH & ALGEBRA TEST:

During the interview process, each applicant takes a basic math and algebra test to assess basic skills. Range 0-8 points.

6. **INTERVIEW EVALUATION:**
During the interview with the admissions committee, the interview questions are inquiries intended to access 5 qualities of the applicant: intellect, motivation, personality, knowledge, and verbal communication skills. Each applicant is asked the same questions. Immediately following the interview, the members of the admissions committee complete a standardized and weighted Interview Evaluation form, ranking the applicant from 1-5 points in 9 categories. The Program Director and Clinical Instructors totals are averaged together to reach an interview score for the applicant. Range 9-45 points.

7. **FINAL APPLICANT REVIEW:**
After each interview, the admissions committee review the entire application, references, transcripts, questionnaires, and interview evaluations. Each committee member completes the Application Review form making a recommendation concerning the applicant's qualifications for admission.

8. **RECHECK:**
Finally, all points are totaled for each applicant and rechecked for scoring errors. The applicants are ranked by these score and the top 4-6 are offered positions in the program. The next several highest scoring applicants may be named as alternates.

ACADEMIC TRANSCRIPT SCORING

Academic ability is an extremely important aspect of the application process. We feel that grades, evidenced on a transcript, are a valid indicator of the applicant's future internship performance. The university transcript is reviewed along with the university's degree requirements (if the student is enrolled in a degree program). Classes scored reflect the university's requirements and our educational requirements. Points are awarded for the following courses:

REQUIRED COURSES	OPTIONAL COURSES
ADVANCED LEVEL MATH	
1 semester Advanced Math (Algebra, Precalculus, Statistics)	
PHYSICS	
2 semesters Physics	
NATURAL SCIENCES	
2 semesters of Anatomy and Physiology	1 semester Microbiology
1 semester Chemistry OR Biology (maximum credit is 2 semesters)	1 semester Kinesiology
MISC. GENERAL EDUCATION	
1 semester Medical Terminology	1 semester Allied Health course
1 semester Speech	1 semester Arts/Humanities
1 semester English Composition	
1 semester Information Systems/Computer Science	
1 semester Social/Behavioral science (Psychology, Sociology, Ethics, etc.)	

ACADEMIC SCORING

1 point/course credit hour is multiplied by the grade point received. Grade points are: A=3, B=2, C=1, D=0, F=0, P=2, W (withdrew)= -1. Each course is only scored once. If an applicant has repeated a course, the scoring is based on the average of the two grades. If a student has withdrawn from a course, 1 penalty point is subtracted from the course points, for each withdrawal. If a student has completed optional courses they will be scored and considered as well.

ALLOWANCE/PROJECTED GRADES

A scoring allowance will be given to create a fair scoring situation so as not to penalize applicants who have not, at the time of interview, completed their final semesters of prerequisite courses. If a student is currently enrolled in the course in question (as evidenced by an official spring transcript), they will receive a projected grade based on the grade received in the first semester of that course.

Prior to the interview, the applicant will receive a copy of the Program's Policy Manual by email for their review. Applicant will be given an opportunity to ask questions and receive explanations to their satisfaction regarding policies during the interview process.

On the day of the interview the applicant can expect:

1. To be greeted by a team member, given a brief tour of the radiology department and then escorted to the medical library;
2. To receive another copy of the Policy Manual for review and will be asked to sign a form stating that they reviewed the program materials;
3. To be given time to complete a brief math test and questionnaire for scoring;
4. To be escorted to the personal interview with the Admissions Committee. The admissions committee will consist of, at a minimum, the Program Director, Clinical Instructor and a senior student.

ACCEPTANCE INTO THE PROGRAM

All scored items are totaled after the interview and applicants are ranked by score. The program accepts up to 6 students per year and the Program Director will notify the selected applicants by phone or email within a week of the final interview. Up to 2 alternates will also be notified and if they accept alternate status, they will be informed if a position opens in the program prior to the June start date.

Acceptance into the program is based on successfully completing the entire application process, not on any single criterion. Each applicant is considered individually.

Applicants who are offered a position in the program:

1. Have 5 days from the date of notice of acceptance to submit a letter officially accepting a position in the program;
2. Must send a $300 non-refundable deposit for books. Several months before the June start date, the Program Director will contact accepted students with a greeting letter directing them to submit proof of health insurance, Pre-Entrance Health Evaluation and other miscellaneous items that need to be addressed prior to the June start date.

Final acceptance into the program occurs once the applicant returns a completed Pre-Entrance Health Evaluation and has successfully completed Trinity Health's human resource background check.

Advisory Committee

The Trinity Health Radiologic Technology Program has an established Advisory Committee to oversee and maintain program quality and continued program improvement. The committee is chaired by the program director. Other member representatives include Clinical Instructor(s), Radiology Department Administrator, Program Medical Director, Lead Radiologic Technologist, Radiology Coordinator, Student Representative and a public member. The Advisory Committee will meet at least annually to review and make recommendations for changes to program mission, vision, policies, didactic curriculum and clinical education plan. The Advisory Committee or a specialized Assessment Committee will also meet at least biannually to review and revise the overall Assessment Plan of the program and ensure and support compliance with JRCERT Standards for accreditation. The Advisory Committee may also be called upon in situations of student grievances and/or student disciplinary action.

Student Expenses

FINANCIAL AID

Trinity Health Radiologic Technology Program does not provide any financial aid. Students in need of financial aid must go through their college of enrollment. The school is recognized by the United States Department of Education through the JRCERT accreditation process. Costs to students are determined to be reasonable and will be accurately stated and published. Policies and processes for student withdrawal and tuition refund will be fair, published and made known to all applicants. Other student resources include applying for grants or scholarships as members of the ASRT and NDSRT. Also, the Trinity Health Foundation awards an annual scholarship to a senior student author of a scientific research paper.

TUITION and AFFILITATED UNIVERSITIES

Tuition for students not enrolled in an affiliated university or not receiving financial aid (self-pay) is $3,500 per year. First year tuition is due the first month of class and the second-year tuition is due by July 15th of the fourth semester. The Trinity Health Radiologic Technology Program also accepts those applicants who have obtained or are pursuing an associate degree if the minimum requirements for our program admission are also met.

Trinity Health Radiologic Technology Program has tuition affiliation agreements with Minot State University, University of Mary in Bismarck, and the University of Jamestown. These joint students enroll in the required clinical course in accordance with their university's required coursework to earn a bachelor's degree in radiologic technology. The students pay tuition directly to their university as set forth by those institutions, so that a degree can be awarded upon completion of our certificate (internship) program. For specific questions regarding the university coursework required to be awarded a bachelor's degree, please contact that university advisor. For information on university tuition costs, please contact the university directly.

TUITION REFUNDS

If the student withdraws during the first semester, which is a three-month probationary period, 50% of tuition received will be refunded. No refund is given if the student withdraws after the first semester for self-pay students.

Fees

BOOKS

Students are responsible for the cost of the textbooks required by the program. The cost of text books for the full two years averages $850. The $300.00 tuition deposit will be credited toward the total cost of books.

UNIFORMS

Students are to wear appropriate uniforms while in the clinical environment and are responsible for providing their own. Trinity Health Radiology staff are assigned the color BLACK.

Surgical attire, when required for a clinical rotation area, will be provided by the hospital.

PROFESSIONAL ORGANIZATIONS

Students are required to become members of a national professional organization, the American Society of Radiologic Technologists (ASRT) www.asrt.org. Senior students are also required to become a member of the state professional society, North Dakota Society of Radiologic Technologists (NDSRT). Total dues are approximately $50.00 per year.

ENTRANCE HEALTH EVALUATION

All students ACCEPTED into the program must submit a completed health examination form along with a record of immunizations and TB testing completed within the last six months. This expense is incurred by the student. Evidence of good health and ability to meet the technical and physical demands of the program is the final requirement for acceptance into the program.

HEALTH INSURANCE
All students are required to carry personal health insurance. The student will be enrolled for state Workforce Safety Insurance, the cost of which shall be paid by Trinity Health.

TRANSFER CREDIT
The program does not accept transfer credit from other clinical/internship radiologic technology programs, but will consider university coursework in order to determine if an applicant has the necessary prerequisite coursework to apply to the program.

STUDENT SERVICES
The following is a listing of student services provided by Trinity Health Radiologic Technology Program in conjunction with Trinity Health.

- Free parking (in designated areas)
- Free shuttle service (between clinical areas)
- Discounted meals (both hospital cafeterias)
- Free CPR (provided upon enrollment and recertification just prior to graduation)
- Free Hepatitis B vaccine series
- Free TB testing (provided upon enrollment)
- Free radiation monitoring service (replacement charges may apply)
- Free OSHA in-service training
- Free mandatory hospital in-service training
- Discounted text books
- Free limited Worker's Compensation coverage
- Free counseling services (provided by instructors and pastoral care staff)
- Free lockers/storage for personal belongings (student must provide personal padlocks)
- Free identification badges (replacement charges may apply)
- Free medical library access
- Free influenza shots
- Free internet access for school related purposes (in classroom and at various hospital locations)
- Free lead markers (replacement charges may apply)
- Surgical scrubs provided when on surgical rotations
- Use of the classroom for studying and breaks
- Use of skeletons and anatomical models for testing and positioning

Program Schedule

The Program operates on a schedule of 3 semesters, which vary in length from 10 to 18 weeks, starting in June. The school week runs from Sunday through Saturday. Regularly scheduled student hours vary according to student assignment but are generally from 8 am to 4 pm or 10 am to 6 pm Monday through Friday. Students will spend an average of 12 hours per week in didactic class, 3 hours per week in scheduled clinical lab and the remainder in clinical rotations. The student schedule is designed to never exceed 40 hours per week (Sunday – Saturday) of combined clinical and didactic class time and clinical assignments do not conflict with regularly scheduled didactic or clinical labs. Weekend and evening clinical rotations are scheduled accordingly as to avoid conflict with regularly scheduled class.

Didactic Classes are held daily Monday through Thursday in the classroom. Hours are 9:00 a.m. to 3:00 p.m., with up to one hour break for lunch.

Clinical Classes that include demonstrations, laboratories, and clinical testing are scheduled once during the week from 1:00 p.m. to 4:00 p.m. Juniors are scheduled for clinical class on Wednesday afternoon and seniors on Tuesday afternoon. Lunch break on clinical days is 30 minutes.

The yearly student schedule is comprised of three semesters beginning June.

The general weekly student schedule is as follows:

JUNIORS

Monday	*6:30 a.m. to 9:00 p.m.	Clinical rotation
Tuesday	9:00 a.m. to 3:00 p.m.	Didactic class
Wednesday	*6:30 a.m. to 4:00 p.m., with 1/2 hour for lunch	Clinical rotation Clinical class/lab
Thursday	9:00 a.m. to 3:00 p.m.	Didactic class
Friday	*6:30 a.m. to 9:00 p.m.	Clinical rotation

SENIORS

Monday	9:00 a.m. to 3:00 p.m.	Didactic class
Tuesday	*6:30 a.m. to 4:00 p.m., with 1/2 hour for lunch	Clinical rotation Clinical class/lab
Wednesday	9:00 a.m. to 3:00 p.m.	Didactic class
Thursday	*6:30 a.m. to 9:00 p.m.	Clinical rotation
Friday	*6:30 a.m. to 9:00 p.m.	Clinical rotation

* Clinical hours vary depending on clinical area assignment / student lunch is taken prior to clinical class where necessary

Academic Calendar

The student will complete six consecutive semesters during the 23-month program including a limited number of weekend and evening clinical rotations. Time spent in weekend and evening rotations will not exceed 25% of the student's total clinical clock hours.

ACADEMIC CALENDAR (SUBJECT TO CHANGE)

	SEMESTER 1 & 4	SEMESTER 2 & 5	SEMESTER 3 & 6
	10 WEEKS	***16 WEEKS***	***18 WEEKS***
ACADEMIC YEAR 2019-2020	JUNE 17-AUGUST 23, 2019 OFF: JULY 4-7, 2019	SEPTEMBER 3-DECEMBER 20, 2019 OFF: NOVEMBER 28-DECEMBER 1	JANUARY 6 - MAY 14, 2020 SPRING BREAK: MARCH 14-22 OFF: APRIL 10 (Good Friday) **GRADUATION: MAY 14, 2020**
	SEMESTER BREAK: AUGUST 25-SEPTEMBER 2, 2019	SEMESTER BREAK: DECEMBER 21-JANUARY 5, 2020	SEMESTER BREAK: MAY 15-May 31, 2020

	12 WEEKS	***15 WEEKS***	***18 WEEKS***
ACADEMIC YEAR 2020-2021	JUNE 1 -AUGUST 21, 2020 OFF: JULY 3-5	SEPTEMBER 8-DECEMBER 18, 2020 OFF: NOVEMBER 26-29,2020	JANUARY 4 - MAY 13, 2021 SPRING BREAK: MARCH 13-21 OFF: APRIL 2 (Good Friday) **GRADUATION: MAY 13, 2021**
	SEMESTER BREAK: AUGUST 22 - SEPTEMBER 7, 2020	SEMESTER BREAK: DECEMBER 19-JANUARY 3, 2021	SEMESTER BREAK: MAY 14 - MAY 31, 2021

JRCERT Approved Clinical Sites

Master clinical rotation schedules for a whole year are provided to the students several months in advance. Schedules are designed to provide equitable clinical rotations with adequate time to achieve completion of all required competencies. The following Trinity Health clinical sites are JRCERT approved for student rotations:

1. Trinity Hospital
2. Health Center – West, Orthopedic Clinic (attached to Trinity Hospital by skywalk)
3. Health Center – Medical Arts
4. Health Center – St. Joseph's, Same Day Surgery (attached to Medial Arts Clinic)
5. Health Center –Town & Country (Advance Imaging Center)
6. Trinity Health South Ridge

Sites 3-6 are physically detached from the main Hospital and students are expected to drive to those sites when assigned to those rotations. All clinical sites are within 3 miles from the main Hospital. More detailed information on each clinical site can be obtained in Appendix A – the Clinical Education Plan.

General Curriculum Sequence and Course Descriptions

TRINITY HEALTH RADIOLOGIC TECHNOLOGY PROGRAM CURRICULUM OUTLINE

The Trinity Health Radiologic Technology Program is a hospital-based program and thus is more flexible due to our small class sizes and instructor to student ratio. Because many of our students are working towards a bachelor's degree from an affiliated university, our curriculum is structured in clock hours and credit hours to ensure compliance with the credits required by university's for the clinical internship.

CLOCK HOUR TO CREDIT HOUR CONVERSION

A didactic class day is 6 hours and a clinical day is 8 hours. Students complete didactic courses in an accelerated, immersive fashion creating a strong foundation for each course to build upon as they journey through the program. This format has been extremely successful for our students. They attend didactic class 2 days a week.

Our semesters range from 10 to 18 weeks. Clock and clinical hours are calculated utilizing guidelines set forth in the North Dakota University System Academic Credit Matrix and the U.S. Department of Education Credit System. A clock hour is 50 minutes of class time instruction with students preparing a minimum of 2 hours outside of class for each hour in class. To convert didactic clock hours to credit hours, clock hours are divided by the number or weeks in the semester or an average of 15 weeks for consistency. Clinical hours are converted to credits utilizing the same guidelines regarding internship and/or practice credit hours. Our program utilizes a scale of approximately 120 clinical hours = 1 credit.

COURSE NUMBERS

300 series courses are 1st-3rd semesters (Junior students)/400 series courses are 4th-6th semesters (Senior students).

2019-2021 CURRICULUM: DIDACTIC AND CLINICAL COURSE SEQUENCING

1st Semester - June 17 through August 23, 2019 (10 weeks)

Course #	Course Name	Clock Hours	Credits
300	Orientation (*10)/Fund of Radiologic Science	40	2.0
303	Radiation Protection I	20	1.0
304	Medical Terminology	30	2.0
306	Physics I	40	2.5
316	Positioning I	45	3.0
329	Patient Care	15	1.0
322	Introduction to Pathology	20	1.0
340	Intro to Advanced Modalities	8	0.5
350	Clinical I	120	1.0
	TOTAL CLOCK HOURS/CREDITS	338	14.0

2nd Semester – September 3 to December 20, 2019 (16 weeks)

Course #	Course Name	Clock Hours	Credits
305	Professional and Medical Ethics	25	1.5
308	Physics II	40	2.5
318	Positioning II	85	5.5
352	Clinical II	360	3.0
329	Patient Care	8	0.5
	TOTAL CLOCK HOURS/CREDITS	518	13.0

3rd Semester – January 6, 2020 to May 14, 2020 (18 weeks)

Course #	Course Name	Clock Hours	Credits
320	Positioning III	85	5.0
330	Introduction to MRI	10	0.5
310	Physics III	70	3.5
331	Scholarly Research Paper*	10	
354	Clinical III	420	3.5
329	Patient Care	8	0.5
	TOTAL CLOCK HOURS/CREDITS	603	13.0

4th Semester – June 8 to August 28, 2020 (12 weeks)

Course #	Course Name	Clock Hours	Credits
402	Physics IV	65	4.0
406	Positioning IV	30	2.0
412	Anatomy & Physiology I	10	1.0
440	Clinical IV	240	2.0
331	Research Paper*	6	
329	Patient Care	10	0.5
	TOTAL CLOCK HOURS/CREDITS	361	9.5

5th Semester – September 8 to December 18, 2020 (15 weeks)

Course #	Course Name	Clock Hours	Credits
403	Digital Imaging	73	4.5
414	Anatomy & Physiology II	60	4.0
416	Introduction to Computed Tomography	10	0.5
419	Principles of Ultrasound (8)/Lab (2)	10	0.5
418	Principles of Mammography	10	0.5
442	Clinical V	368	3.0
460	Registry Review*	8	
	TOTAL CLOCK HOURS/CREDITS	539	13.0

6th Semester – January 4 to May 13, 2021 (18 weeks)

Course #	Course Name	Clock Hours	Credits
450	Radiobiology	50	3.0
410	Radiation Protection II	40	2.5
444	Clinical VI	376	3.0
460	Registry Review*	12	
470	ARRT Registry-Comprehensive Review*	130	
	TOTAL CLOCK HOURS	608	8.5

* = clock hours not used to calculate credits

COURSE DESCRIPTIONS

FIRST YEAR - SEMESTERS 1 THROUGH 3

The following is an abbreviated description of each course. A more complete description is given in the course syllabi given to the students prior to the course.

300 ORIENTATION/FUNDAMENTALS OF RADIOLOGIC SCIENCE *Prerequisite(s): None*

This course orients new students to policies/procedures of the school, department and hospital. This course also provides the student with an overview of radiography and its role in health care delivery to lays the foundation of the imaging principles and terminology necessary to a radiographer.

303 RADIATION PROTECTION I *Prerequisite(s): None*
This introductory course provides students with the theory and application of concepts related to the basic principles of radiation protection and how to implement them in clinical environment. It must be completed prior to beginning any clinical assignments.

304 MEDICAL TERMINOLOGY *Prerequisite(s): None*
This course is designed to teach the meaning of word parts, how to combine them and break them down to understandable terms, enabling the student to communicate in the medical world. It is conducted throughout the first semester.

305 PROFESSIONAL AND MEDICAL ETHICS *P rerequisite(s): None*
This course provides an understanding of the medical imaging technologist's professional scope of practice, ethical and medicolegal issues in the healthcare environment and patient rights.

306 PHYSICS I (previously 307) *Prerequisite(s): None*
This course is an introduction to the history of x-ray, sources of radiation and the appropriate units of measure as well as a basic understanding of atomic structure.

308 PHYSICS II **(previously 308, 408)** *Prerequisite(s):306 Physics I*
This course provides an understanding electrostatics, electrodynamics, magnetism, electronics and imaging system components.

310 PHYSICS III EMR/ X-RAY PRODUCTION/EMISSION **(previously 309-311)** *Prerequisite(s): 308 Physics II*
This course provides students with an understanding of how x-ray photons are produced and interact with matter. The x-ray emission spectrum, x-ray photon characteristics of quantity and quality, and the five basic x-ray interactions with matter are discussed in depth

316 POSITIONING I **(previously 302, 315)** *Prerequisite(s): 300, 303*
318 POSITIONING II **(previously 316, 317, 318)** *Prerequisite(s): 316 Positioning I*
320 POSITIONING III **(previously 319, 320, 321, 416)** *Prerequisite(s):318 Positioning II*
The first year Positioning courses encompass an introduction to the relevant anatomy and physiology, pathology, radiographic positioning, trauma modifications and radiation protection in the following areas: Introduction to skeletal and positioning, respiratory, upper and lower extremities, spinal column, digestive system, skulls/facial bones, digestive system and cranium/facial bones. Clinical labs are conducted in conjunction with the didactic course. Image evaluation with an emphasis on improving radiographic quality and positioning in order to produce optimal images is also discussed.

322 INTRODUCTION TO PATHOLOGY *Prerequisite(s): None*
This course provides students with the concepts of disease, effects on human body and considerations for radiographic procedures.

329 PATIENT CARE *Prerequisite(s): None*
This course begins early in the first semester and continues through to the fourth semester. The purpose of the course is to enhance the knowledge and skills required to provide safe, quality patient care, including pediatric and geriatric care, in medical imaging and apply the learned competencies in the clinical areas of the radiology department, emergency and trauma services and the surgical suites. This course is taught during both didactic class and clinical time depending on the topic.

330 MAGNETIC RESONANCE IMAGING **(previously 406)** *Prerequisite(s): None*
This course introduces the basic principles of MRI, equipment operation, image production and safety, as well as some cross sectional anatomy. The course also includes clinical rotations.

331 SCHOLARLY RESEARCH PAPER *Prerequisite(s): None*

Junior students chose a medical imaging topic to conduct research and prepare a scientific research paper that is submitted to as part of the Michelle Keller Scholarship program that is a long-standing tradition in our school. When the students are seniors, the same paper is submitted to the North Dakota Society of Radiologic Technologist annual scientific research paper contest. Time is allotted during the 3rd and 4th semesters to students to work on this paper. The paper is not graded, but the student's work on and presentation of the paper are assessed in a rubric for the Assessment Plan.

340 INTRODUCTION TO ADVANCED MODALITIES *Prerequisite(s): 300, 303*

This patient care course is a prerequisite for and must be completed prior to all advanced modality clinical rotations. This course is designed to give the student an introduction to the daily workings, types of exams, equipment used and patient protection encompassed CT, MRI, CVI, Interventional Radiology, Nuclear Medicine/PET, Ultrasound, Mammography, DEXA and Radiation Therapy. Technologists from each area will speak about common exams, equipment, patient care and safety in their respective areas. Prior to rotating through advanced modalities, students are also given self-study written assignments to complete and a checklist of objectives to complete during the rotation. This course assists the students with having a basic knowledge about advanced modalities as they assimilate into the radiology department with patients, physician and health care team members. Students have clinical rotations through each of these areas during the program.

350 CLINICAL I *Prerequisite(s): 300, 303, 302*
352 CLINICAL II *Prerequisite(s): 340 Intro to Adv. Mod., 350 Clinical I*
354 CLINICAL III *Prerequisite(s): 352 Clinical II*

The Clinical courses include the student's clinical experiences during their first year. Clinical I includes student program orientation in the classroom, then hospital and radiology orientation in clinical areas. The students are introduced to the radiology office and transportation areas to provide insight into the workings of these areas on a daily basis. The student will progress through a series of clinical radiography assignments, including general radiography, orthopedics, fluoroscopy, surgery & portables. Once a student has passed the didactic and clinical phases of an exam, they are able to perform the exam under direct supervision; after demonstrating competency they can perform the exam under indirect supervision.

Clinical II & III will continue to expose students to radiography, orthopedics, fluoroscopy, surgery and portables. but also includes also include Radiation Therapy, CT, Interventional Radiology and Cath Lab, MRI and Nuclear Medicine/PET. Students must complete reading assignments, worksheets, learning objective checklists and/or papers for the advanced modalities prior to rotating in those areas-these requirements are found in the Clinical Plan. *See below for other prerequisites for modalities.*

SECOND YEAR - SEMESTERS 4 THROUGH 6

402 PHYSICS IV Quality Factors **(previously 313, 407)** *Prerequisite(s): 310*

This course offers an in-depth discussion of the characteristics of a high quality medical image and on optimizing radiographic spatial and contrast resolution, as well as the role that beam restricting devices and grids play in the control of scatter radiation reaching the imaging receptor.

403 DIGITAL IMAGING ACQUISITION & DISPLAY **(previously 301, 403, 412)** *Prerequisite(s): 401*

The purpose of this course is to present the fundamental principles and components of computers used in medical imaging as well as the primary hardware equipment and software applications used in digital imaging environments. This course presents discussion on digital imaging equipment, digital radiography, computed radiography, fluoroscopy and digital fluoroscopy. Techniques and the features of digital image viewing, acquisition, archiving and retrieval are also covered along with QA for digital systems.

406 POSITIONING IV *Prerequisite(s): 320*
The course encompasses the relevant anatomy and physiology,
pathology, radiographic positioning, trauma modifications and radiation protection in the following areas: Urinary system and bony thorax. This course also covers intravenous contrast media.

410 RADIATION PROTECTION II *Prerequisite(s): 401, 303*
This course is a review of the principles of radiation protection followed by an in-depth discussion of occupational and patient radiation protection, including dose monitoring, x-ray room design, National Council on Radiation Protection and Measurements (NCRP) regulations and CFR-Title 21 requirements.

412 ANATOMY/PHYSIOLOGY I **(previously 413, 417)** *Prerequisite(s): 320*
The purpose of this course is to facilitate student knowledge of and ability to identify human anatomy and describe the physiology of the endocrine and reproductive systems.

414 ANATOMY/PHYSIOLOGY II **(previously 401, 402, 405)** *Prerequisite(s): 412*
The purpose of this course is to facilitate student knowledge of and ability to identify human anatomy, including cross-sectional anatomy, and describe the physiology of the circulatory and nervous systems, as well as sectional anatomy.

416 COMPUTED TOMOGRAPHY **(previously 406)** *Prerequisite(s): 403*
The basic principles of equipment operation and image production with Computed Tomography and are explored. The course also includes clinical rotations.

418 PRINCIPLES OF MAMMOGRAPHY **(previously 404)** *Prerequisite(s): None*
This course presents breast anatomy and pathology with an emphasis on routine positioning of breast tissue in mammography during students sixth semester. This course also includes a clinical rotation.

419 DIAGNOSTIC ULTRASOUND **(previously 411)** *Prerequisite(s): None*
This course is designed to provide students with basic introductory knowledge of ultrasound physics principles prior to their rotation to enhance student understanding while observing in US. Instrumentation and operation of diagnostic medical sonography equipment is presented. The course also includes a clinical rotation.

440 CLINICAL IV *Prerequisite(s): 354 Clinical III*
442 CLINICAL V *Prerequisite(s): 440 Clinical IV*
444 CLINICAL VI *Prerequisite(s): 442 Clinical V*
These Clinical courses include the student's clinical rotations during their second-year. The student will continue to progress through clinical assignments, including general radiography, orthopedics, fluoroscopy, surgery & portables under direct and indirect supervision and students must complete all objectives and clinical assignments for graduation. The student will become more confident having completed all positioning courses and passed competencies of most exams.

The second-year rotations will also include DEXA, Radiation Therapy, CT, Interventional Radiology and Cath Lab, Ultrasound and Mammography. Students must complete reading assignments, worksheets, learning objective checklists and/or papers for the advanced modalities prior to rotating in those areas-these requirements are found in the Clinical Plan. *See page below for complete prerequisites for modalities.*

450 RADIOBIOLOGY **(previously 409)** *Prerequisite(s):403, 410*
This course explores human biology of cells and the effect of radiation on the body, including the radiosensitivity of tissues and organs from the DNA level to total body response, concentrating on deterministic and stochastic responses.

460 REGISTRY REVIEW EXAMS *Prerequisite(s): completion of junior year coursework*
In semesters 4, 5 and 6 students take monthly 100 question multiple choice "mock" exams (St. Catherine's) and then class time is spent reviewing the questions/answers and discussing each topic carefully as preparation for registry review course in the sixth semester.

470 ARRT REGISTRY REVIEW **(previously 418)** *Prerequisite(s): Successful completion of all coursework*
This course assists the student to prepare for the ARRT certification and registration examination and to become a member of the radiologic technology workforce. The purpose of the course is to reinforce and complement prior knowledge gained in the program curriculum.

OTHER PREREQUISITES to clinical rotations in advanced modalities:

2nd semester	**Prerequisites** (for all clinical rotations 340 (Pt Care Ch 18) Intro to Adv. Mod.)
Radiation Therapy	Clinical Assignments and Objectives (Merrill's Ch. 30, pp 431-458 and worksheets; paper/case study, objectives and evaluation)
CT	Clinical Assignments and Objectives (Merrill's Ch. 25, pp 205-224, 237-244 and worksheets; objectives and evaluation)
3rd semester	
Cath Lab/IR	Ch 4 – Patient Care and Safety, Ch 6 – Vital Signs, Ch 17 – EKG; Clinical Assignments and Objectives (Merrill's Ch. 27, pp 273-294 and worksheets; paper/case study, objectives and evaluation). Note this first rotation will be spent with the radiology nurse assisting with vital signs and observation of sterile procedures.
MRI-AIC	Course 330-Intro to MRI & MRI Screening sheet Clinical Assignments and Objectives
4-6th semester	
NM/PET	Clinical Assignments and Objectives (Merrill's Ch. 29, pp 387-410, 428-430 and worksheets; paper/case study, objectives and evaluation)
DEXA	Clinical Assignments and Objectives (Merrill's Ch. 19, pp 465-502 and worksheets, objectives and evaluation)
CT	Ch 14- Aseptic Technique, Ch 16 Venipuncture; Clinical Assignments and Objectives
Cath Lab/IR	Ch 6 – Vital Signs, Ch 17 – EKG, Ch 15-Pharmacology, Ch 16 Venipuncture and drug administration, Ch 13-Add'l Procedures; Course 414 (Circulatory System); Clinical Assignments and Objectives
US	419-Intro to US; Clinical Assignments and Objectives
Mammo	418-Intro to Mammography; Clinical Assignments and Objectives

Academic Standards

To promote higher standards of professional achievement in the field of radiologic technology, we believe it is necessary to require students to maintain academic excellence.

Students of the School of Radiologic Technology are required to maintain an 80% average in didactic assignments or testing, a 80% average on clinical testing and an 80% average on performance evaluations.

Students not meeting academic standards will be subject to disciplinary action up to and including dismissal nor will be allowed to graduate unless academic standards are met.

DIDACTIC STANDARDS OF PROGRESS

1. A cumulative didactic score is calculated each time a unit or course is completed and is available at any time from the program director so that students can assess their didactic progress. Based on the units of study or courses completed at the end of each of the 6 semesters, the cumulative didactic grade is recorded, along with clinical grades, and discussed during semester evaluations with the student.

2. Failure to attain an 80% on a single examination on a unit of study will result in review of subject matter, remedial counseling and possibly a repeat examination within agreed time frame at the discretion of the Program Director. If the student fails to take repeat at agreed time frame or to achieve an 80% or higher on the repeat exam, a verbal warning is given. The final grade recorded for the unit is initial test score.

3. Failure to maintain an 80% cumulative didactic grade average will result in the student receiving a written warning. Dismissal may result if the cumulative didactic average is not raised to 80% within a three month probationary period.

CLINICAL STANDARDS OF PROGRESS

1. Failure to attain a passing score of 80% on a single clinical testing will result in the student being counseled about the failure, allowed time for remedial work, followed by a repeat examination.
   The repeat score recorded will be recorded and identified with a (R) behind it.

2. Failure to be adequately prepared for testing will result in a grade point reduction.

3. Failure to maintain a 80% or higher clinical testing grade average will result in the student being issued a written warning and probationary status.

4. Failure to maintain a cumulative 80% average on performance evaluations will result in a written warning and probationary status.

5. Failure to achieve the required percentages by the end of the probationary period will result in dismissal.

6. Failure to complete clinical competencies during the first year of the program within the designated time frame will result in written warning.

7. Failure to complete clinical competencies during the second year of the program within the designated time will result in the issuance of a written warning and the delay of a student's graduation date.

Grading Policy

The purpose of the grading system is to aid in completing the mission and goals of the program and to serve as a guide in providing a high quality education and graduating competent entry level radiologic technologists.

If the student's cumulative grade falls below the required minimum standard, actions are taken in compliance with the Discipline and Dismissal policy.

DIDACTIC COURSES

100–94%	A	85–80%	C
93–86%	B	79% & below	F

If a student fails to score 80% or higher on any given examination, they may be required to complete remedial assignments or take a repeat examination at the discretion of the Program Director. The initial test score will be the final course grade.

If a course involves quizzes and/or labs, they will comprise a given percent of the student's final course grade as set forth in the syllabus for that course.

CLINICAL COURSES

Clinical Testing and Performance Evaluations

100–94%	A	85–80%	C
93–86%	B	below 80%	F

CLINICAL TESTING

Students must achieve a 80% on the clinical test prior to being allowed to perform radiographic examinations on patients. If a student fails a simulated clinical test, they are tutored and must repeat the exam. The second test score is recorded and identified with an (R) behind it. (See the Clinical Plan for detailed clinical grading policies.)

SEMESTER CLINICAL GRADING

Students are graded on all unit testing and performance evaluation categories completed that semester.

PERFORMANCE EVALUATIONS

Students are graded on each exam performed on a patient. This grade is based on completed Performance Evaluation forms and comprises 90 % of their semester grade clinical.

PROFESSIONAL DEVELOPMENT

Each semester, the student's professional development is evaluated by the clinical instructor. This comprises 10% of their semester clinical grade.

SEMESTER CONFERENCES

The Program Director and Clinical Instructor objectively determine performance ratings and keep the students informed of their individual progress through semester evaluation conferences. Through this procedure, students receive appropriate recognition for their semester performance and are counseled on needed improvements. During the private conference, the student is also allowed to evaluate the school, instructors and the clinical sites.

MONTHLY CONFERENCES

The Clinical Instructor meets with the students each month to inform them of their individual progress and counsel on needed improvements. During this private monthly conference, the student is also allowed to evaluate the school, instructors and clinical sites, and address any issues that may arise.

Additional evaluation conferences are scheduled if the need arises to address specific issues.

Probation & Student Conduct Policy

Students enrolled in their first semester of the program are probationary students. This probationary period is two-fold, it allows time for the program officials to determine whether or not the student is performing satisfactorily and allows time for the student to decide whether or not he/she is satisfied with the school and their career choice. The student may be eligible for a partial refund if they choose to drop out of the program during the first semester. (Refer to TUITION and STUDENT EXPENSES section in this Manual.)

It should be noted that the student can again be placed on probation following the initial probationary period, however no tuition refund will be issued. Students may be placed on probation for inappropriate conduct and/or academic failure. Probation is initiated at the discretion of the Program Director, in compliance with the DISCIPLINE AND DISMISSAL POLICY.

Discipline & Dismissal Policy

Trinity Health is a service organization, dedicated to providing quality healthcare for their patients and the community. The school of radiologic technology is an important part of this mission and therefore students must maintain high standards of academic achievement and ethical behaviors as well as continued professional development. The ARRT requires students applying for certification exam to sign statements related to Codes of Ethics and Honor, which are included in this document and can be found on the ARRT website at https://www.arrt.org/earn-arrt-credentials/requirements/ethics-requirements.

Students are expected to assume responsibility for their own education. They should demonstrate initiative, maturity, perseverance and intellectual curiosity, in order to master the practice of radiography. The hospital and school are committed to providing a well-rounded and high quality intensive course of study. The student must also assume their role in this commitment.

Whenever the conduct and or academic record of a student does not meet the minimum standards of the school, or if the student is considered disruptive to the hospital, disciplinary action will be taken. In case of severe or extraordinary offenses, immediate dismissal from the program will result. When failure of standards is less severe, disciplinary measures are progressive in nature. The objective of disciplinary measures is to correct or modify performance which is unacceptable and or inappropriate. Disciplinary action is not intended to be punitive. Emphasis is placed on counseling.

The School's response to a student's particular behavior will be guided by the nature of the behavior, circumstances surrounding the event, review of the student's records, discussions with involved parties, and how it affects their status to sit for the ARRT Certification exam. The School's response will take into consideration the student's openness over the matter, and willingness to correct the behavior. School actions may be, but not limited to, consultation/verbal correction, documented consultation, probation, grade reduction, or a dismissal not necessarily preceded by probation. Documentation of each infraction will become a part of the student's permanent file and may be required to be reported to the ARRT on student's application for boards. Reportable Honor Code infractions required by ARRT are denoted with an asterisk, however this does not include all infractions that may be reported.

The following are descriptions of progressive disciplinary actions, in increasing order of severity.

NOTE: An asterisk by an infraction indicates it must be reported to ARRT.

I. VERBAL WARNING

A discussion of the nature of the failure of standards is held in private between the student and the program director. Documentation of the verbal warning will be placed in the student's file. Verbal warning will be given on the first offense of the following professional standards of conduct.

- evidence of careless performance of tasks assigned
- absence from assignments without permission

- extended lunch or breaks
- plagiarism* — "Plagiarism" means using someone else's ideas or words without using quotation marks and/or giving credit by citation of source(s).
- disrespectful or discourteous actions or behaviors
- failure to follow the dress code or hygienic standards
- unexcused tardiness
- using inappropriate/offensive language
- unauthorized use of cell phone, including texting, during class or while in clinical areas
- other minor infractions deemed inappropriate in accordance with school/hospital policy

II. WRITTEN WARNING/PROBATION

Continued failure to meet standards of progress (both professional and academic) following the issuance of a verbal warning or a breach of the standards of conduct listed below, will result in the student being given a written warning and being placed on probationary status for a period to not exceed three months. Note this action may be reported to the ARRT and may render the student ineligible to take certification exam.

Written warning applies to the first offense of the following professional standards of conduct.

- failure to meet academic standards
- violation of Codes of Ethics and Honor*
- cheating* — Examples of Cheating: Copying / submitting another person's work as your own, unauthorized use of someone else's work, using unauthorized notes, text or equipment including programmable calculators during an examination, stealing an examination or using a stolen examination, allowing another student to have access to your work, thereby enabling that student to represent the work as his or her own
- sleeping during assignments
- disorderly conduct on school or hospital grounds*
- refusal to perform tasks assigned
- dishonesty, misrepresentation, or making false statements*
- failure to demonstrate improving efficiency in the performance of clinical and/or didactic assignments
- revealing confidential information*
- absence from class or clinical assignments (second offense)
- unauthorized duplication or inspection of testing material(s)
- leaving clinical site while on clinical time without proper authorization
- sexual harassment*
- illegal, inappropriate, unethical actions or behavior*
- continued breaches of verbal warning(s)
- breach of HIPAA regulations*
- practicing in an unsafe manner or outside the scope of professional training*
- other evidence of unprofessional conduct or breech of standards in accordance with hospital/school polices*

Procedure:

1. The written warning is prepared by the Program Director, stating the specific standards not being met and the length of the probationary period.
2. A conference is held between the student and the Program Director. Goals are set for the student to meet to rectify the failure of the standards of progress and given notice of the length of the probationary period. The student is informed that if he/she has not met the standards and goals by the end of the probation period, he/she will be dismissed from the program.
3. The student signs the written warning and given a copy. The original is placed in the student's file in the Program Director's office.

III. DISMISSAL

Dismissal is the forced withdrawal of a student enrolled in the program. It results when a student has not met the standards of progress following a probationary period or for willful violation of the standards of conduct listed below.

Final dismissal means the student discontinues attendance and is not eligible for reentrance at a later date.

Students being dismissed would be offered the option of withdrawing voluntarily so that their record would not reflect a forced dismissal.

A student who has been dismissed may initiate a Grievance Procedure according to the school's Grievance Policy. Pending the outcome of the grievance, the student would not be allowed to attend class or report to their clinical assignments.

If the grievance is successful and the student reinstated, they would resume school attendance and would be required to complete all assignments and competencies missed before being allowed to graduate. If the grievance is not successful, the student is not allowed reinstatement in the program and the dismissal would be final.

The procedure to inform the student of her/his dismissal is as follows:

1. A Notice of Dismissal is prepared by the Program Director, outlining the reasons for dismissal.
2. A conference is held between the student and the Program Director to inform the student of the reasons for dismissal, and to explain the Grievance Procedure available to them.

Dismissal on the first offense without verbal or written warning will be enforced for the following professional standards of conduct.

- willful violation of safety regulations or intentional carelessness in regard to the safety of patients, co-workers or student*
- deliberate abuse of another person*
- willful destruction of property*
- theft*
- falsification of school or hospital records*
- failure to attend class or clinical assignments on more than three consecutive days without notifying the Program Director
- reporting to class or clinical assignment while under the influence of alcohol or a controlled substance (refer to this school's Drug Policy)*
- possession of a controlled substance*
- conviction of a felony or misdemeanor showing a lack of sound moral judgement*
- carrying a concealed lethal weapon
- any gross unethical or unprofessional conduct in offense of school/hospital policy*

Codes of Ethics & Honor

As part of the application process for admission into this program, applicants are asked to sign a Codes of Ethics and Honor form to ensure the applicant's awareness of the ARRT requirements well in advance of applying for the certification exam.

The ARRT is the entity that will determine a student's eligibility to take the required certification exam to become a registered radiologic technologist. As such, students who may have answered "yes" to any of the questions on the Code of Ethics and Honor (summarized again below) must personally contact the ARRT and complete a pre-application to determine whether they are eligible to attempt the required certification exam for radiologic technologists.

Contact information:

ARRT
1255 Northland Drive
St. Paul, MN 55120-1155
Phone (651) 687-0048
www.arrt.org

The health care profession is held to a higher standard of integrity than many non-healthcare professions. As a student in our school of radiologic technology, you will learn to be a health care professional. As such, society's ethical principles and laws to safeguard the health of the public should guide your behavior.

The American Registry of Radiologic Technologists (ARRT) requires you to sign the following statement before being allowed to take your registry exam to become a Radiologic Technologist.

"Have you ever been convicted of a misdemeanor or a felony? _____

Note: Charges or convictions resulting in any of the following must also be reported:
–pleas of guilty, – pleas of no contest, – withheld or deferred adjudication, – suspended or stay of sentence
–pre-trial diversion, –military court martial, – drug or alcohol related charges
DO NOT report misdemeanor charges or convictions that occurred while a juvenile and that were processed through the juvenile court system.

Also due to the higher standard of integrity that society places on healthcare professionals, the ARRT expects students to also academically conduct themselves in a moral and ethical manner, and not to act in any manner that is punishable by law or ethical misconduct.

The ARRT requires you to sign the following two statements before you are allowed to take your registry exam.

1. *"Have you ever been suspended, dismissed, or expelled from an educational program that you attended in order to meet ARRT certification requirements?*_____
2. *"Have you had any license, registration, or certification denied, revoked, suspended, placed on probation, or subjected to discipline by a regulatory authority or certification board (other than the ARRT)?*_____

Applicants or current students of the program with questions about this should seek clarification from the ARRT well in advance of preparing to apply for the certification exam so that there is ample time for allow the ARRT to determine their eligibility to take the exam based on information provided by the student/applicant.

Clinical Education Plan

See Appendix A for detailed Clinical Education Plan.

Clinical Education Plan for Evening and Weekend Assignments

During the program, the students are scheduled for a limited number of evening and weekend assignments. These assignments are supervised at all times by registered radiologic technologists and proper supervision is provided on a one to one ratio. They are also designed into the student's schedule so as not to exceed a 40 hour week or interfere with class time.

PURPOSE:

The purposes of these assignments are to expose the students to the unique activities and duties that a radiologic technologist performs on evenings and weekends, to increase confidence in their decision making and critical thinking skills and to provide the opportunity to enhance the skills expected of an entry level radiographer.

GENERAL LEARNING ACTIVITIES UNIQUE TO ASSIGNMENTS:

During these hours, the student can expect to learn to adapt to and successfully function in situations that vary from weekday patient imagining and perform essential office duties normally performed by the week day office staff. Students also have the opportunity to interact with radiologists and other physicians on a one to one basis, exercise more independent judgment and receive individualized instruction from a variety of registered radiologic technologists.

SPECIFIC LEARNING OPPORTUNITIES:

1. The student is exposed to, and learns to cope with, a wide variety of patient conditions which are more frequently seen on weekends and evenings. Examples of these conditions would include trauma, multiple trauma, emergency surgical cases and alcohol or drug abuse.
2. The student experiences less competition for required competency and proficiency exams.
3. The area of assignment is less restrictive, as the student is allowed to perform in all diagnostic radiography areas.
4. The student has more time to master equipment skills and learn how to cope with equipment malfunctions during the service technician off hours.
5. The student's time management skills and decision making skills are enhanced by involvement in the multiple duties of the radiologic technologist during evening and weekend hours.
6. The student's critical thinking skills are enhanced by learning how to organize the "unscheduled" patient care duties, giving consideration to patient priorities and procedure time requirements.
7. The student has the opportunity to enhance skills expected of the entry level radiographer.
8. The student will have the opportunity to learn and perform essential office duties normally performed during the weekday by office staff. Such experiences include exam scheduling, retrieval of print reports and medical images and the performance of teleradiography.
9. The student will learn how to initiate call back procedures for stand by personnel.

Student Supervision Policy

In support of professional responsibility, the provision of quality patient care and radiation protection, the following rules are established for the supervision of radiography students. The basis for this policy is The Standards for accredited radiography programs, as established by the JRCERT. The Clinical Instructor ensures that this policy is reviewed by all new technologists and also reviews it with all technologists periodically.

1. Students shall not take the responsibility or the place of paid, qualified staff.
2. Students will be supervised according to their level of competency. The following guidelines have been established for determining competency and supervision level.

DIRECT SUPERVISION

Students who have not completed the required number of competency evaluations for a particular exam shall carry out the examination/assignment under the direct supervision of a registered technologist.

Process:

- The radiographer reviews the request for examination in relation to the student's level of achievement
- The radiographer evaluates the condition of the patient in relation to the student's level of achievement.
- The radiographer is present throughout the entire exam.
- The radiographer reviews and approves the images.

INDIRECT SUPERVISION

Students who have successfully completed the required number of competency evaluations for a particular exam/assignment are allowed to perform under indirect supervision of a registered technologist.

Guidelines:

- The radiographer will be immediately available to assist the patient and/or student.
- The radiographer will be adjacent to the room or location of the radiographic procedure.
- Immediate availability/adjacent location of the radiographer applies to all areas within the clinical sites including surgery, portable work, clinic sites.

3. A registered technologist must always be immediately available to assist a student regardless of their level of competency or length in the program.
4. Any repeat images performed by a student shall be done only in the presence of a registered technologist, regardless of the students level of achievement.
5. Supervision must be provided by a registered radiologic technologist.
6. Lists of student completion of competency evaluations will be posted and regularly updated to assist technologists and students in determining proper levels of supervision required.
7. The ratio of registered radiologic technologists to students shall not exceed 1:1. The number of students assigned to a clinical education setting must not exceed the number of registered technologists assigned to that specific area.

Clinical Site Rooms and Number of Techs

Trinity Health Clinical locations & number of technologists per shift	Days	Evenings	Weekend
Hospital	5 techs	3 techs	2 techs/shift
A room R/F			
B room			
C room R/F			
Portables			
GE Revolution Portable			
GE Revolution Portable			
Surgery Equipment			
OEC 9800 C- arm #7			
OEC 9800 C- arm #8			
OEC 9900 Elite C-arm #9			
Mini C-arm			
O-Arm			
St Joseph's SD Surgery	1 tech	0 techs	0 techs
OEC Mini 6600 C-arm			
GE OEC 9800 C-arm			
Portable			
Health Center - Medical Arts	2 techs	1 tech	1 tech
HC MA A room			
HC MA B room			
Health Center West (Ortho)	2 techs	0	0
HC -W IDC Room 1			
HC -W IDC Room 2			
Health Center-South Ridge (Pain Center)	2 techs	0	0
1 Radiography room			
OEC- c-arm			
OEC - c-arm			
Health Center - Town & Country (AIC)	1 tech	0	0
1 Radiography room			

Total Didactic & Clinical Hours

The program operates on a schedule of three semesters per year beginning in June. Semester length varies, please refer to the academic calendar provided for more details. The school week runs from Sunday through Saturday. The student will complete six consecutive semesters during their internship, including a limited number of weekend and evening clinical rotations. The time spent in these rotations will not exceed 25% of the students total clinical clock hours in accordance with JRCERT requirements. The school recognizes the same holidays as Trinity Health therefore, students are not scheduled on those holidays.

Students are not scheduled on the traditional observed holidays.

When scheduled for an evening rotation, the student is in clinical rotation 1 pm to 9 pm, Monday through Friday. Students are scheduled off the Friday before and Friday after a weekend rotation. When scheduled for day weekend rotations, the student is in clinical rotation 7 am to 3 pm Saturday and Sunday. On evening weekend rotations, the student is scheduled from 1 pm to 9 pm. Didactic and clinical class hours and clinical rotation hours will not exceed 40 hours per week.

The following charts show the break-down of student hours.

2019-2020 ACADEMIC YEAR

Semester	Classroom	Clinical	**Total** (including PM & weekends)	pm**	Weekend
1	244	120	**364**	0	0
2	186	368	**554**	24	32
3	204	424	**628**	40	32
4	60	304	**364**	24	16
5	186	368	**554**	40	32
6	240	376	**616**	24	16
Total	1120	1960	**3080**	152	128

*Deducted time for 4th of July, Labor Day, 2 days for Thanksgiving, spring break and Good Friday.
** Included the weekend pm shift (1-9) with pm count and not the weekend count also.

A clinical day is 8 hrs, and a classroom day is 6 hrs.

PM week shift that included a weekend: 16 hrs added to the weekend & 16 hours to the pm shift.
PM weeks were counted as 24 hours
Weekends were counted as 16 hours

Total clinical Weekend/PM hours = 280 hours or 14 % of clinical hours (less than the 25% allowed by JRCERT)

Vacation/Holidays, Funeral Leave and Breaks

VACATION, HOLIDAY

Students get a 2 week break between each semester.
Labor day, Christmas, New Years and Memorial holidays fall during semester breaks.
In addition, students will be granted the following days off:

Thanksgiving Break:	Thursday and Friday
Easter Break:	Good Friday through Easter Sunday
Spring Break:	Variable dates-1 week off
Vacation:	Junior students: approximately 2 weeks following graduation
July 4	
Personal leave days (PLD) —	5 as a Junior
	5 as a Senior

FUNERAL LEAVE

Students will be granted up to two excused days funeral leave for the death of an immediate family member which includes:

- parents and step parents
- children and stepchildren
- grandparents and great grandparents
- brothers, sisters, step brothers, step sisters
- spouse

If the funeral is not for an immediate family member, the student will be given the day of the funeral off. CTO or PLD must be used for time in excess of the day.

Should extended time off be needed due to a family member's death, the Leave of Absence policy will be followed.

COFFEE AND LUNCH BREAKS

Dining room areas are provided for coffee and lunch breaks. Students may purchase cafeteria meals at reduced employee rates or bring a lunch. Coffee breaks are limited to 15 minutes, lunch breaks are 30 minutes.

Compensatory Time Off (CTO) & Personal Leave Days (PLD)

Trinity Health Radiologic Technology Program provides personal leave days designated as PLD and compensation time designated as CTO. The following information serves as guidelines for the student as to CTO and PLD accumulation and how it may be used. These guidelines are not all inclusive and the school recognizes that extenuating circumstances do arise and make every effort to accommodate student's requested time off.

PLD

1. Junior students are granted five personal days. They must be used by the last day of the junior year (graduation date for seniors) as they will not carry over into second year. However, as an incentive, students with one (1) unused annual PLD will be scheduled off the Friday prior to August break. Junior students with two (2) or more unused annual PLD will be scheduled off the Thursday and Friday prior to August break. The designated time off is non-negotiable as they are scheduled so as not to interfere with the didactic or clinical schedule.
2. Senior students are granted five days which must be used by mid April of their senior year, as PLDs cannot be used during the registry review course conducted during the final weeks of the program.
3. PLD may not be used when student is scheduled for clinical weekend or evening rotations. The time spent in those rotations is minimal, therefore missing an entire day reduces the clinical experience gained during these rotations. However, students may trade clinical weekend and evening rotations with another student.
4. Use of PLD is discouraged when students are scheduled for advanced imaging rotations such as CT, MR, Ultrasound, Radiation Therapy, Cardiovascular Interventional or Nuclear Medicine.
5. A PLD request must be submitted as early as possible to the Program Director (one week prior to requested date is preferred).
6. PLD must be approved by the Program Director prior to taking time off, otherwise leave will be considered an unexcused absence.
7. PLD's must be taken in 8 hour time blocks, if less than 8 hours needed then request will be considered as CTO.
8. If a student requests a PLD for a future event, but has already used the allotted five days for that year, the school is under no obligation to allow the student time off. A student cannot make up time in advance in an attempt to bank hours as PLD.
9. Should the student be granted personal leave in excess of the five (5) PLDs, and it is clinical assignment hours, makeup time will be determined and scheduled by the Clinical Instructor as eight (8) hour increments during the next scheduled break immediately following the PLD. An example: if student requests and is granted a PLD on March 3, the next program scheduled break would be spring break, therefore student must complete eight (8) hours clinical makeup time during spring break. CTO cannot be used for makeup time.
10. If the granted personal leave is didactic hours, makeup time and activities will be determined and scheduled by the Program Director. Junior students must complete scheduled makeup time by end of third semester. Senior students must complete scheduled makeup time by end of sixth semester in order to meet graduation requirements and be a program endorsed candidate, eligible to take the ARRT registry examination.

CTO

The following are examples by which CTO may be accumulated at a 1:1 time ratio. The final decision regarding any other activities not listed as well as the amount of compensation time granted will be at the Program Director's discretion.

A) Participating in Trinity Health employee or community service activities such as health fairs
B) Donating Blood (must submit documentation of date/time of event, signed by phlebotomist)
C) Preparing an Interesting Case Study and presenting such during class for fellow students (see guidelines below)
D) Remaining in the clinical rotation area greater than 10 minutes after shift to observe, assist or perform a radiologic examination (double CTO time is granted if time spent is greater than 30 minutes at the discretion of program officials based on the situation)
E) Participating in NDSRT or ASRT designated activities or committees
F) Participating in educational activities related to radiologic technology, health care, patient advocacy or public speaking
G) A senior student in sixth semester will be granted CTO if attending clinical in order to complete clinical check off requirements at the discretion of the clinical instructor.

1. CTO must be approved by Clinical Instructor or Program Director 24 hours prior to use.
2. CTO cannot be used during didactic class time or clinical demonstration labs
3. If the CTO is requested during a special or elective clinical rotation, the student must get the Clinical Instructor's approval and signature on CTO request form BEFORE time taken.
4. CTO cannot be used to take greater than four (4) hours at one time (ie an entire 8 hour rotation)
5. Students must use CTO for doctor appointments exceeding one hour (must submit verification from care provider to Program Director the following day).
6. CTO use on an evening or weekend clinical rotation is discouraged, however time may be taken with approval from Program Director or Clinical Instructor.
7. Attendance to class, clinical assignments and clinical lab classes is mandatory. All time missed due to tardiness will be made up on the day of infraction. If a student is unable to make up the time on that day, time will be deducted from the student's CTO bank: 15 minutes for every 5 minutes late.
   Demonstrations in clinical lab classes are performed only once. No make-up sessions will be held.

Case Study Guidelines

Student is to complete a Radiology Interesting Case Study Worksheet and discuss with Program Director to determine appropriateness of content and if approved, to schedule a date/time to present to fellow students. The case study should be one that the student assisted with or performed in the clinical area. The case study content should be related to disease or trauma and etiological considerations with emphasis on radiographic appearance of disease or trauma. The radiographic imaging study should be conducive to presenting radiographic information in electronic format accessed from Radiology Department PACS for class room viewing.
Form available upon request.

Absenteeism & Sick Leave

Students are allowed five (5) personal leave days (PLD) per year (see above). Please give Program Director as much advanced notice as possible when planning PLD. If a student should exceed the yearly limit, they must make up the clinical and class hours they were absent. The Program Director and Clinical Instructors will determine the scheduled make-up time in relation to the student's level of clinical competency completion. The student will ideally be rescheduled for make-up time during the week of absence to avoid exceeding the JRCERT limit of 40 hours per school week.

If an extended illness occurs and the student is unable to meet the objectives of a course or the program, the Disability and Leave of Absence Policy will be followed.

Students must notify the Program Director or Clinical Instructor as soon as possible when unable to attend school by calling and/or leaving a message for the Program Director at 857-2316 or the Clinical Instructor at 857-5415, depending on where you are assigned for the day. Emailing, texting or leaving a message on a cell phone is not acceptable. Failure to notify the program official will result in an **unexcused** absence. The time of absence must be made up and the Discipline and Dismissal Policy will be followed.

1st offense — verbal warning
2nd offense — written warning
3rd offense — disciplinary action up to or including dismissal
3rd consecutive unexcused absence — dismissal

Students should note that all absences (excused and unexcused) are reported on their permanent transcript.

Medical Appointments

Students are encouraged to make medical appointments outside of school hours. However, if this is not possible, medical appointments should be scheduled so they do not interfere with scheduled didactic class and clinical lab periods. **The student must request a signed verification from the provider and turn into Program Director upon return**. If the medical appointment exceeds one hour, the student must take CTO time. Abuse of this policy will be considered an infraction and dealt with in accordance with the Discipline and Dismissal Policy.

Tardiness

Time missed due to tardiness will be deducted from the student's CTO bank. For every 5 minutes the student is late, 15 minutes will be deducted from their CTO bank. The clock used to determine "on time or late" is at the discretion of the Clinical Instructor and Program Director.

In the clinical areas "on time" means in the radiology department and ready to perform assigned responsibilities. If the student is on a surgery portable rotation they should arrive a few minutes early to allow for extra time to change into hospital attire.

"On time" in the classroom means at your desk and prepared with the necessary items for the class period. Note if a student is late due to the performance of a clinical competency, the clinical instructor will notify the program director and the student will be exempt from the time penalty.

The only exception to tardiness is inclement weather. In the interest of student safety, if driving conditions are poor, weather will be taken into consideration. Please refer to the Inclement Weather policy.

Jury Duty

The Trinity Health Radiologic Technology Program believes in fulfilling the obligation of jury duty and will allow students who are summoned to participate in this civil duty. Upon receiving a summons for jury duty, the student must notify the program director of the days of obligation and work with faculty to reschedule student class or clinical activities.

Jury duty will not count against personal time. In most cases, jury duty lasts one week or less. Students are given up to 24 hours of excused time to fulfill their civic obligation. If more time is needed, the circumstances will be reviewed on an individual basis and the student may be required to make up time. Students must show evidence on the time of jury duty by bringing in a letter from the court, which gives the dates and hours served each day, upon returning to school.

Leave of Absence & Long Term Disability

Any student absent from the program for a period exceeding one month should withdraw and reapply the following year. The student will be considered a new applicant and will be part of the applicant pool for that year.

A student with an excused absence of less than one month will be allowed to use personal leave days to cover all or a portion of the time missed and may be required to complete the remaining hours immediately after established graduation date of their class.

PROCEDURE:

1. Student must be in good academic standing
2. Request must be submitted to the program director. A document will then be drafted to include the following:
   - reason for leave, if for medical leave, student must provide documentation of physicians written leave recommendation
   - length of leave and date student will return to program
   - requirements which must be met by student to complete the program
   - time limitation that student has to complete program requirements, following return to program. Due to JRCERT enrollment limitations, the maximum time allowed will be through the fourth week post graduation.
3. Request must be approved by the Program Director in consultation with the Advisory Committee.
4. The student will review written request with Program Director then sign it, indicating acceptance of leave plan. A copy of request will be given to student and a copy placed in their personal file.

RATIONALE:

The requirements for completion of this educational program are based on two years of full time study, with the components of the curriculum being offered once per year. The program reserves the right to handle and formulate leaves of absences on a case by case basis. It is almost impossible to formulate policies which are applicable to each and every case. In the case of leave of absence due to illness or pregnancy, one cannot accurately predict when one will leave or return to the program. The intent of this policy is to provide a plan for the students to complete his/her education following a brief or extended absence due to reasons beyond the control of the student.

NONCOMPLIANCE:

A student who has been granted a leave of absence and does not comply with guidelines set forth is subject to dismissal from this program.

* Clinical hours vary depending on clinical area assignment / student lunch is taken prior to clinical class where necessary

Graduation Requirements

To graduate from the Trinity Health Radiologic Technology Program, the student must fulfill all the following requirements.

1. Complete all didactic courses with a cumulative grade of no less than 80%.
2. Complete all clinical testing with a cumulative grade of no less than 80%.
3. Complete all competencies and proficiencies with a cumulative grade of no less than 80%.
4. Complete all clinical checkoffs, papers, worksheets, clinical safety log and miscellaneous assignments.
5. Complete all ARRT clinical and didactic requirements.
6. Pay all tuition and book fees in full.
7. Return all tests and quizzes.
8. Return all hospital and school property.
9. Turn in TLD's
10. Complete an exit interview with the Program Director.
11. Submit a completed application to ARRT for registry exam. Processed application will generate student exam notification window period. Student must then schedule a date, time and location for testing with the ARRT designated testing service.

If the above requirements have been met, the student is then awarded a diploma from the program. Graduation is usually held the second week of May. Students enrolled in a university degree program will have a statement of completion forwarded to the university upon completion of the program requirements to graduate. Credit hours awarded by the university are at the discretion of the individual university.

All students successfully completing the program are eligible to write the American Registry of Radiologic Technologists (ARRT) national certification examination. Upon successful completion of this exam, students receive the right to use the credential Registered Technologist in Radiography — R.T.(R)(ARRT) after their name.

Early Release & Delayed Program Completion Policy

The School of Radiologic Technology requires a student to complete the full 23 month program. However, since it is a competency based program, the following provisions have been made.

EARLY RELEASE

A student may be declared clinically competent and eligible for early release if they have met the following criteria:

- enrolled in their last semester of school
- completed all required clinical competencies with a cumulative grade of 80%
- maintained satisfactory didactic grades (determined by Program Director)
- deemed to have the clinical knowledge of an entry level graduate technologist (determined by Clinical Instructors)

A student who has been deemed clinically competent may elect to spend the remainder of their clinical hours in advanced imaging or radiologic modalities. The modality choices will be determined by the Program Director, in consultation with the student and will be based on individual student requests or needs.

The student's eligibility and this policy are subject to the following stipulations:

- the student will not be released to cover hospital or clinic staffing shortages
- the student must first complete final competency testing
- the student must attend didactic class
- the student must maintain their achieved didactic GPA

Failure to abide by this these stipulations will result in re-evaluation of the student's eligibility and possible revocation of elective privileges.

DELAYED RELEASE

A student who has not completed all didactic and clinical requirements of the school by graduation date will not be confirmed to take their ARRT certification exam. The student will be offered the option to stay in the program and given until the fourth week of June of that year to complete needed requirements. Once the student has satisfactorily completed the program's requirements, the ARRT will be notified of their eligibility. If the student has not completed program requirements in stated time frame, they will be dismissed. The time frame is necessary due to the limited student capacity as set forth by the JRCERT to ensure proper student supervision.

Student Records Policy

The following records are maintained while the student is enrolled at the school of radiology:

- student application
- pre-entrance physical examination
- vaccination record
- didactic and clinical grades
- semester evaluations
- occupational radiation exposure on file with Radiation Protection Officer (RSO)
- conference forms
- disciplinary actions taken
- attendance records
- clinical safety log

Students are free to examine their records at any time, with the exception of two (2) portions of their application– personal references (if the waiver was signed) and personal interview data.

The following records are maintained on a permanent basis.

- program transcript, which includes clinical and didactic grades, verification of ARRT registry results (pass/fail) and attendance
- student application
- pre-entrance physical
- vaccination record
- final occupational radiation exposure report on file with Radiation Protection Officer
- written disciplinary actions (evidence of verbal warnings will be destroyed)

Permanent records will be released with written permission from the former student, in accordance with the Buckley Amendment.

Inclement Weather Policy

INCLEMENT WEATHER POLICY FOR SCHOOL OF RADIOLOGIC TECHNOLOGY

The program administration recognizes that under certain extreme weather conditions, students cannot and should not attempt to come to campus or clinical sites. However, if classes are not officially cancelled, it is the responsibility of each student to decide if he/she feels safe driving in the inclement weather. This is a decision that must ultimately be made by each individual. Students must assume responsibility for deciding if weather conditions are too hazardous to permit safe driving regardless of school announcements. Safety and personal judgment are required in each individual case. Caution is urged! Even though safety is the first concern, students must avoid any abuse, or potential abuse, of this situation.

CLINICAL DECISION BY 6:00AM

The decision to close the school or delay the opening during inclement weather is the responsibility of the Program Director or his/her designated representative. A decision concerning class/clinical will be made by 6:00 a.m. and school officials will let the students know if class or clinical time is cancelled. The absence of an announcement should alert students that clinicals will operate on a regular schedule.

If the school closes due to inclement weather, class/clinicals will be cancelled and make up time will be arranged. If the school closes early after the start of class/clinical, the Program Director will notify the Clinical Instructors to dismiss the students from clinical at the time of the closing. If inclement weather policy has not been invoked and the school is open, but the road conditions where the student lives preclude safe travel and the student elects to not report to class or to clinicals, the student must follow the program policy for reporting of the absence. The absence will be documented. In the event of any absence due to inclement weather, make-up time will be added to the semester to ensure students receive the full hours of clinical instruction that are required for the course.

General Student Safety Policies

GENERAL SAFETY

At Trinity Health students are classified as Category I, individuals involved in direct patient care, and are therefore required to complete the same health and safety requirements as Category I employees. These requirements include:

1. Tuberculosis (TB-PPD Mantoux) testing. Students are required to have a TB test, within the 12 months prior to beginning the program as part of the prerequisite physical. If no prior TB testing, new students will have a second testing done through Trinity Health employee health.
2. Annual Safety/Infection control education. This education shall cover at a minimum the following topics:
   - safety (fire, OSHA, etc)
   - security
   - hazardous materials
   - emergency preparedness
   - infection control (including standard precautions)
   - sexual harassment
   - HIPAA
   - security and workplace violence
   - latex allergies
   - age specific competencies
   - radiation and MRI safety

Students are required to complete this education the first week of the program, prior to admittance in the clinical areas and annually thereafter.

New students are required to attend employee hospital orientation within their first month of enrollment. Hospital orientation includes information of Hepatitis B vaccine, general safety and infection control.

Students are required to become CPR certified before transporting patients alone. CPR is provided free of charge to the student through Trinity Health.

Students are offered the Hepatitis B series free of charge.

Trinity Health provides students with Workforce Safety Insurance. Further information can be found through Trinity Health's Human Resources department.

VIOLENCE

In order to provide a safe educational work environment, the School has zero tolerance for violent acts or behaviors that threaten the safety of other students, instructors, Trinity Health employees, visitors, or patients. Students who engage in violent acts or behaviors will be subject to disciplinary action, up to and including expulsion from school. If deemed necessary the School will also contact the local authorities.

Students are responsible for reporting acts of violence or threatening behavior to the Program Director or Clinical Instructors immediately. In the event of imminent threat of danger, the student should call 911 for help.

SEXUAL HARASSMENT

Students have a right to receive an education in a professional environment free from sexual discrimination and disrespectful, offensive behavior of a sexual nature. The purpose of this policy is two-fold. First, to protect the students from sexual harassment and second, to protect patients and Trinity Health employees from experiencing sexual harassment as a result of student conduct.

Sexual harassment may be verbal, physical, written or visual. Conduct that may constitute harassment includes but is not limited to, sexual or suggestive comments or jokes, sexual propositions, sexist remarks, unwanted sexual advances, unwanted touching, staring or leering, pressure for sexual favors in return for special treatment, any other actions of sexual nature, either implicit or explicit which create a hostile environment.

If a student believes that they have experienced sexual harassment or have knowledge of sexual harassment occurring, they should report the conduct to the Program Director, Clinical Instructors, or Radiology Department Administrator.

If the complaint is against a Trinity Health employee (including school personnel), Trinity Health's Director of Human Resources will be notified and action taken in accordance with Trinity Health's Harassment Policy .

If the complaint involves another student enrolled in the School, a meeting of the School's Advisory Committee will be convened, including a representative from Trinity Health's Human Resource Department. The Committee will have the authority to:

a) dismiss the complaint
b) take disciplinary action up to and including expulsion from school
c) take any action which in the opinion of the Committee and Trinity Health is deemed necessary

Any student engaging in sexual harassment may be subject to discipline up to and including expulsion from school.

NON-FRATERNIZATION POLICY

The Trinity Health Radiologic Technology Program is committed to maintaining an environment which fosters and encourages student development of high ethical standards. Because of this commitment, the School strongly discourages romantic, sexual, and exploitative relationships involving students with other student enrolled in the radiology program, a radiologic technologist, radiologist, mid-level provider or physician employed by Trinity Health.

In support of this policy the following guidelines shall be enforced:

1. "Involved student" is *not* allowed to submit a Performance Evaluation on a patient exam for grading, nor complete any check-offs while being supervised by "involved technologist, mid-level provider or radiologist".
2. "Involved technologist" *cannot* grade any exam or complete any check-offs for "involved student".

DISCRIMINATION

The School is committed to utilizing practices that protect students from illegal discrimination, or any other form of discrimination. It will not discriminate against any student because of race, color, religion, national origin, gender, disability, age, or marital status.

If a student believes other students, school faculty, or any Trinity Health employee is discriminating against them, they should report the discrimination to the Program Director, Clinical Instructors, the Radiology Department Administrator, or directly to Human Resources.

Radiation Safety Policy

In accordance with ALARA and Standard 4 of the JRCERT Standards for an Accredited Educational Program in Radiologic Science, the school has set the following radiation protection guidelines.

A student is required to exercise sound radiation protection practices at all times. At no time may a student participate in a procedure using unsafe protection practices. Unsafe practices are grounds for dismissal from the program. This includes, but is not limited to:

1. Taking exposures, intentionally or unintentionally, on another student or while another student is in a radiographic room. All exposures are to be taken for a medically valid reason only and must be ordered by a physician or licensed independent practitioner.
2. Attempting any procedure under indirect supervision until competency has been achieved. (When competency is achieved indirect supervision is appropriate.)
3. Repeating exposures without the direct supervision of a registered technologist, regardless of competency level.

A student will always wear their TLD while in the clinical setting and adhere to following guidelines.

1. The TLD shall be placed appropriately at the neck level. During fluoroscopy the TLD shall be on the outside of protective shields.
2. The TLD shall be changed quarterly, on the date required.
3. The TLD shall not be worn if undergoing a diagnostic procedure as a patient.
4. If a student loses their TLD, or intentionally or unintentionally misuses them, the student must report it (in writing) to the Radiation Safety Officer and the Program Director and will be charged for replacement. (Approximately $10)
5. Quarterly exposures are monitored by the RSO, Program Director, and student. Upon receipt of Quarterly exposure report by RSO it is reviewed and sent to Program Director. Program Director will review and post in classroom for students to review and initial within 30 days. In accordance with the RSO's guidelines the following limit for exposure should not be exceeded:
   - total dose equivalence
   - 3.75 mGy (375mrem) per quarter = 0.015 Gy/yr (1.5 rem/yr)

   In the rare event that a student exceeds these limits it will be investigated, reported appropriately and the student will be counseled.
6. Permanent exposure records are maintained by the RSO.

STUDENT RADIATION PROTECTION

1. Student shall wear protective lead aprons while performing portable radiography and fluoroscopy procedures.
2. Student shall wear a thyroid shield during fluoroscopy procedures.
3. Student shall wear lead gloves if the student's hands are in the primary beam during a fluoroscopy procedure.
4. Student shall not hold an Image Receptor during any radiographic procedure.
5. Student shall not hold patients during any radiographic procedure when an immobilization method is the standard of care. In the rare even that a student would need to hold a patient, the student shall follow above guidelines 1, 2 & 3, and make every effort to not be in the direct path of the primary beam.

Patient radiation protection is also a serious obligation and should never be taken lightly. Any unsafe radiation practices that expose a patient to unnecessary radiation are also grounds for dismissal. This includes but is not limited to:

1. Taking exposures without appropriately shielding children and any patient with reproductive capabilities.
2. Taking exposures without questioning females, within reproductive age, about possibility of pregnancy.
3. Taking additional exposures, not requested by the radiologist, medical physician, or licensed independent practitioner.

Reference: Trinity Health Radiologic Technology Program Clinical Education Plan, Radiation Protection Practice Guidelines

MRI Safety Training Policy

The American Society of Radiologic Technologists (ASRT) recognizes the concept of ALARA to include energies used for magnetic resonance. Students participate in clinical education in magnetic resonance imaging (MRI) starting their third semester and complete an average of 48 hours prior to graduation. Students new to the program will receive instruction on basic MRI safety during the first week of school and complete a confidential MRI screening sheet to determine if they are eligible to participate in this portion of clinical education. Students unable to enter the MRI scan room will have an alternative clinical experience assigned. The screening sheet is to be reviewed by a staff MRI technologist prior to the senior student's rotation in MRI to ensure no changes before admittance into the MRI imaging area. Second year students will review MRI safety through the designated Trinity Health annual mandatory education course (Health Stream module) and will have their screening sheet reviewed and revised as needed prior to their rotation in the MRI department.

MRI Safety Signature Page
(For enrolled students only)

My signature below indicates that I have received a copy of the MRI safety policy and screening procedures of the Trinity Health Radiologic Technology Program and answered screening sheet to the best of my knowledge. I have also been given an opportunity to ask questions regarding my participation in clinical education in the MRI environment. I acknowledge that it is my responsibility to communicate with program and clinical officials if I need to make a change regarding any information related to program policies and request explanations or clarifications of policies as needed.

I _____ agree to adhere to all policies of the school and Trinity Health.
(print name) For enrolled students only

_____ _____ _____
Signature Date Time

Compliance Policy

Noncompliance with school or hospital policies will be dealt with in accordance with established discipline and dismissal policy, hospital policy, and/or grievance policy.

Safety Event Reporting Policy

In the event that a student is involved in or observes a safety event at Trinity Health involving the facility, patients, staff or visitors, the student is directed to utilize the Safety Risk Management (SRM) procedures on found on Trininet. Details about filing an SRM are covered when students are oriented to Trinity Health's policies.

Student Grievance Policy

DEFINITION OF A GRIEVANCE: any academic or nonacademic problem resulting from an alleged unfair, inequitable or interpretation, application or implementation of a policy or procedure. A grievance can also result from an issue that may initiate from a nonspecific policy or procedure. An academic grade is not an issue for grievance.

The student who has an academic or nonacademic grievance as a result of a specific event or circumstance must follow the student grievance process. A student may seek outside legal counsel; however, the legal counsel may not represent them at the grievance hearing, as it is a closed hearing.

GRIEVANCE PROCEDURE

If a student feels they were treated unfairly because of the application of a policy or program decision, the student has a right to make it known to the program and has the responsibility to do it in a timely, non-disruptive manner. The following process is recommended when addressing these types of issues. A more detailed outline of the process is presented during orientation.

GUIDELINES:

1. The student discusses the issue with the person involved within 48 hours. If satisfactory solution IS achieved, student will inform the clinical instructor of the problem and how it was resolved within 24 hours.
2. If the student is not satisfied with the response in guideline 1, they are to state the issue and requested resolution in writing to a program official. A Grievance Resolution Form is available for this purpose. The program director or clinical instructor will review the information and investigate further, if necessary, and will provide the student with a written response to their concern. All information is considered confidential and is discussed with only those who have a need to know.
3. If the student is not satisfied with the response in step 2, the grievance may be presented to the Director of Radiology and/or the Vice President that oversees radiology in accordance with Trinity Health Problem Solving Procedures. A final decision will be made at this step and will not include officials directly involved in the program (program director, clinical instructors, or faculty). All efforts will be made to assure that a timely response within 48-72 hours is made from the time the written grievance is submitted to program officials.
4. Discrimination complaints are to be filed directly with Human Resources at Trinity Health.

TIME LINES:

Students have the responsibility to present problems and concerns in a timely manner. During this process program officials reserve the right to revise the student's rotations if necessary for the safety of patients, the student or staff. If changes are made to the student's schedule, all efforts will be made to ensure the student

time to make up clinical or class time missed as necessary for the completion of the program.
In the event that an enrolled student should have a grievance related to compliance with the JRCERT standards, they should contact the JRCERT directly —

JRCERT
20 N. Wacker Drive, Suite 2850
Chicago, IL 60606-3182
312-704-5300
website: www.jrcert.org

Grievance Resolution Form

GRIEVANCE RESOLUTION FORM

Student name:_____

Date of incident:_____ Time:_____

Location:_____

Person(s) directly involved in the incident:_____

_____

Other person(s) with information regarding the incident:_____

_____

Detailed description of the incident:_____

_____

_____

_____

_____

_____

_____

_____

_____

Detailed description of what steps have been taken to resolve the incident to date:_____

_____

_____

_____

_____

_____

_____

Signature of the student_____ Date/Time_____

Signature of Program Official receiving the complaint_____

Date/Time received:_____

Student Complaint Policy

The following form may be used to document student complaints that are not covered under the formal Student Grievance Policy so as to provide a record of the complaint and to ensure that a satisfactory resolution is provided to the student and program officials.

STUDENT COMPLAINT FORM

Student name:_____ Date of report:_____

Description of the complaint_____

_____

_____

_____

_____

_____

_____

_____

_____

Description of resolution sought by student (if any)_____

_____

_____

_____

Description of actions taken_____

_____

_____

Was the issue resolved satisfactorily? **Y** or **N** If yes, the sign and file complaint as a record to be purged 1 year after the student graduates.

If no, then what steps are to be taken? (attach a new form if necessary)_____

_____

_____

Student signature_____ Date/Time_____

Signature of Program Official _____

Students' Rights & Responsibilities Policy

1. Students have the right to institutional policies and procedures safeguarding the freedom to learn. Students are responsible for knowledge and application of the policies and procedures.

2. Students have the right to admission without discrimination on basis of race, religion, color, age, national origin, sex, marital status, veteran status or any other status or condition protected by applicable state or federal laws. Students have the responsibility to accept others without discrimination on the basis of race, creed, sex, or marital status.

3. Students have the right to take reasonable exception to data or views offered in any course of study and to reserve judgment. Students are responsible for knowing material offered in any course study in which they are enrolled.

4. Students have the right to orderly procedures of academic evaluation without prejudice. Students are responsible for maintaining standards of academic performance for each course in which they are enrolled.

5. Students have the right to confidentiality by all employees of the school. Students have the responsibility for corresponding confidentiality.

6. Students have the right to a carefully considered policy regarding the information which is part of the student's permanent educational and financial record and the conditions of their disclosures. Students are responsible for maintaining confidentiality of their records.

7. Students have the right to discuss appropriate issues and to express opinions. Students are responsible for maintaining positive public relations for the school and Trinity Health.

8. Students have the right to participate in the formulation of institutional clarification of standards of behavior which is considered essential in appropriate situations. Students are responsible to know these policies and may be disciplined for violations of these policies.

9. Students have the right to printed institution clarification of standards of behavior which are considered essential in appropriate situations. Students are responsible to know these policies and may be disciplined for violations of these policies.

10. Students have the right to adequate safety precautions within the school and its clinical areas. Students are responsible for practicing safety measures within the school and its affiliates.

11. Students have the right to participate with faculty in periodic review of the grading system. Students are responsible for seeking clarification or assistance from faculty regarding academic status.

Health Services Policy

OBJECTIVES:

1. To provide a program designed to promote overall student health.
2. To advise and assist the student when a health problem is present.

POLICY:

1. All students are required to carry personal health insurance.
2. All students must have a complete physical exam before final admission to the program. Health Evaluation forms will be provided and must be returned to Program Director by June 1.
3. Students must have one Mantoux test within 6 months prior to start date, and a chest x-ray if prior positive reaction. (Subject to change, based on Trinity Health Employee policies)
4. Student immunizations must be current prior to admission. Immunization to Rubella will be evidenced if the student can show proof of immunization at or after the age of 15 months or by having an immune rubella titer. Students born in or after 1957 can show immunity to Rubella by one of the following:
   1) documentation of physician diagnosed measles
   2) prior serologic evidence of measles immunity
   3) two live measles vaccinations on or after the first birthday
5. Students will be offered the Hepatitis B immunization, free of charge at the beginning of enrollment in the program.
6. Student health records are kept on file in the office of the Program Director.
7. Students must notify the Program Director when they are ill. Students are allowed five personal leave days (PLD) per year.
8. Students may seek urgent care at Trinity's Emergency Trauma Center. Non-urgent care is provided at Trinity Health Convenience Care. Expenses for office visits and related medical care are the student's responsibility.
9. If the student is unable to meet the objectives of the school because of illness, the Student Leave of Absence Policy and Long Term Disability Policy will be followed.
10. All injuries occurring during school assignments must be reported on the appropriate hospital incidence forms. Needle stick / blood contamination incidents must be reported and followed up in the Emergency Room. Initial charges are waived. Costs of prescriptions or subsequent medical care required are the responsibility of the student.
11. Students must adhere to the Communicable Disease Policy.
12. Students are provided Limited Workers Compensation coverage by Trinity Health.
13. Because of the small ratio of student to faculty, faculty members become personally acquainted with the students. Students are encouraged to seek counseling from the instructor of their choice. Spiritual guidance and counseling is also available, free of charge, from the Trinity Health Chaplain Service. Mental health and drug addiction services are also available through Trinity Mental Health Services at the student's expense.

Drug Policy

Students agree, by their enrollment to abide by Trinity Health's drug policies and the provisions of this policy. Violations of these policies will result in disciplinary actions up to and including dismissal from school. (See Discipline and Dismissal policy.)

PURPOSE:

1. To establish a safe and healthy environment for students, faculty, patients and employees of Trinity Health.
2. To ensure the quality of education provided by this school.
3. To promote the health and wellness of the students by discouraging the abuse of alcohol and the use of illegal drugs.

POLICY:

1. Students must abide by drug policies set forth by Trinity Health, including any changes to policies that are implemented during their time in the program.
2. Students are prohibited from reporting for school activities while under the influence of alcohol or illegal drugs. Improper use of prescription medication will not be tolerated. Violations of this provision may result in dismissal. Students suspected of being under the influence will submit to drug and alcohol testing.

   Refusal of testing will be considered as a failure to comply with school policy and may result in disciplinary action, up to and including dismissal.
3. The sale, distribution, transfer or purchase of illegal drugs on school or hospital properties is strictly prohibited. Students in violation of this provision are subject to dismissal.
4. A student, whose use of alcohol or drugs results in excessive tardiness, absenteeism, or poor performance is subject to disciplinary action, including dismissal.
5. Illegal activities will be reported to the proper law enforcement agencies and the student involved may be subject to criminal prosecution and penalties.

   The student may also be deemed to be in violation of Rules of Ethics by the ARRT and may temporarily or permanently be barred from taking the registry exam. Refer to code of Ethics and Honor in the policy manual.

Transportation & Parking Policy

Students are responsible for transportation to and from school. Parking regulations of Trinity Health must be followed. Any traffic violations or parking fines are the responsibility of the student.

- Students will be issued a Trinity Health parking sticker the first week of class.
- All students reporting to Trinity Hospital, Health Center East or Health Center West are required to park their vehicles in Parking Lot F or Parking Lot V at Health Center - Town & Country. Students may utilize the employee shuttle to get to Trinity Hospital between 6:30 am and 5:30 pm, Monday through Friday. The shuttle picks up and drops off at the east entrance of the Town and Country Center and the west staff entrance of the hospital. A telephone is available (along with instructions on calling for the shuttle) at the respective doors.
- Students parking at the Trinity Hospital St. Joseph's and Health Center Medical Arts campus are restricted to the top level of Lot N, the 3rd Street parking ramp, located off Burdick Expressway.
- Students and faculty are not authorized to park in the reserved lots (customer or staff) while conducting school-sponsored, cooperative activities.
- Students parking in violation of the above policy will be subject to Trinity Health parking violation code and also may be issued tickets by the Minot Police Department.
- Students who have been issued more than one violation will lose 1 hour of CTO for every parking infraction thereafter.

Student Professionalism Policy

The purpose of this policy is to provide guidelines to the student concerning professional conduct and appearance. Students not in compliance with the provisions of this policy are subject to disciplinary procedures.

PROFESSIONAL CONDUCT

Students must at all times conduct themselves in a professional and mature manner in accordance with the Code of Ethics for the Profession of Radiologic Technology, including the following:

The Student Technologist:

1. Functions efficiently and effectively demonstrating conduct and attitudes befitting the profession.
2. Acts to advance the principle objective of the profession to provide services to humanity with full respect to the dignity of mankind.
3. Provides medical services to patients without discrimination.
4. Practices technology founded on scientific fact.
5. Exercises care, discretion, and judgement in the practice of the profession.
6. Provides the physician with pertinent information related to diagnosis and treatment management of the patient.
7. Responsibly, protects patient, self and others from unnecessary radiation.
8. Practices ethical conduct befitting the profession.
9. Respects confidences entrusted in the course of professional practice.
10. Abides by the student supervision policy and does not exceed the professional Scope of Practice.

PROFESSIONAL APPEARANCE

All Trinity employees, volunteers, physicians, students and contract/agency staff must maintain a professional, well-groomed appearance at work. Clothing and grooming of all personnel should contribute to a positive impression of the organization, while contributing to a safe and efficient work environment. In the interest of infection control it will be necessary for all employees to maintain good personal health and cleanliness at all times.

General dress code of Trinity employees are as follows:

- Clothing and shoes shall be neat and clean in appearance.
- All employees will be responsible to maintain good personal hygiene.
- Employees must wear appropriate identification provided by Trinity Health with the picture, name, and title visible (unless covered by surgical scrubs or other protective cover).
- Employees may be required to wear uniforms in whole or in part as determined by the Department Director.
- Employees not required to wear uniforms shall dress neatly and appropriately as directed by their Department Director.
- Hose/stockings must be worn at all times in all areas of Trinity Health.
- Trinity issued scrub attire are to be worn in specified departments only.
- Hair must be neat and clean and of a length and style so as not to interfere with the performance of one's job. Hair must be of a conservative* color. Use of hair coverings or restraint may be required in specific areas as determined by the Department Director.
- A beard or mustache must be neatly trimmed at all times.
- All persons will maintain their finger nails at a reasonable length and must keep nails clean to facilitate effective hand hygiene in the workplace. All persons having patient contact or contact with supplies or equipment for direct patient care may be limited by their department manager, in the use of acrylic fingernails or ornamental nails. It is suggested that only light or neutral nail polish be used and polish not be chipped or worn.
- In the interest of professional image and safety, the wearing of jewelry designed for pierced body parts shall be conservative* and be limited to the ears only. Gauged ears are not permitted. Other types of jewelry may be worn but should be limited.
- Tattoos and/or body art must be conservative* and/or covered while on duty.
- In the interest of patient safety and the concern for our fellow employee, the use of perfume and colognes must be limited in both patient and non-patient care areas.
- Underclothing must be worn at all times while on duty and be unnoticeable.
- Employees should choose attire that does not draw undue attention because of style or length and should allow the wearer to perform job duties comfortably, modestly, and safely.

The following items shall be considered as unacceptable attire:

- printed tee shirts
- sleeveless tops
- low cut blouses or dresses
- midriff tops
- sweatshirts or sweatpants
- denim clothing or jeans of any color, shorts (jeans that are clean, neat and in good condition - no holes/tattering - may be worn for hospital paid meetings)
- form fitting clothing are not permitted (no yoga pants or tight leggings)
- athletic wear, caps
- opened toe shoes (in direct patient care areas)
- flip flop shoes

Dress down days are not permitted. On special occasions, variations to the accepted norm of dress may be allowed at the discretion of Administration.

The following is a list of appropriate scrub colors by dept:

Hospital and Clinics:

- Nurses (RN's & LPN's) – Eggplant
- CNA's & Ward Secretaries – Royal Blue
- Phlebotomists – Navy Blue
- Medical Assistants, Dental Assistants, & Optical Assistants – Maroon
- Housekeepers – Hunter Green
- Radiation Therapy – Black
- X-ray – Black
- Neuro Diagnostic – Eggplant

*Management reserves the right to define conservative. This policy reflects minimum standards or dress and appearance. Variations to this policy because of business necessity should be reviewed with the appropriate Line Manager. The hospital reserves the right to ask any employee or volunteer improperly dressed to go home, change clothing and return to work with loss of pay for the time absent from work, if applicable. Disciplinary action may result for continuous dress code violations.

Cell Phone Usage Policy

Cell phones must be **turned off** while the student is in the classroom or in clinical areas. Cell phones may only be used at break time or meal time. If someone urgently needs to contact a student during school hours they are instructed to call Trinity Radiology at 857-5220 and 857-2316 during classroom hours.

Trajecsys Report System Policies

The Trinity Health Radiologic Technology Program uses the Trajecsys Report System.

Using Trajecsys to Clock In/Out:

AT NO TIME IS A STUDENT TO USE THEIR CELL PHONE TO CLOCK IN/OUT.

1. Students will punch in and out to their clinical sites to validate hours spent in the clinical area. Students must select the correct clinical site when clocking in. If the student clocks in to the wrong clinical site, the student must notify the CI so that it can be corrected.
2. Students must punch in and out using a Trinity Health computer. In the rare event that a computer is not available, the student is to notify the Clinical instructor by calling the Clinical Instructor's office phone. The student must call from a Trinity Health phone line and not the student's cell phone. The time that the student calls the CI will be documented, and the CI will clock the student in using the time that the CI was notified.
3. If the student forgets to punch in or punch out, the student must use a file exemption. If this becomes habitual, the student will be given a verbal warning. If the behavior continues, the student will be given a written warning and possible probation.
4. If a student comes in late or leaves early due to using CTO, the student must enter in the file exemption the reason why, and how many hours CTO are being used.
5. If a student is going to be late on a Clinical day, the student must notify the CI by calling the CI's office phone. The CI will then decide whether CTO may be used, or whether the student will need to make the time up at the end of the clinical day.
6. The CI will enter in the student's Time Log any PLD's used or any sick time used that occurs during a Clinical Day.
   a. if a student is sick on a clinical day, the student is to call the CI's office phone and leave a message.
   b. if a student is sick on a weekend clinical rotation, the student is to call and leave a message on the CI's office phone in addition to calling the CI's cell phone.

The Trajecsys recording system is also used to:

1. Provide an online Log of exams done for competency and proficiency.
2. Provide the student access to competency evaluations done by the supervising technologist and the clinical instructor.
3. Provide the student access to comments made by the supervising technologist and the clinical instructor.
4. Provide an updated weekly clinical schedule for the student.
5. Provide a current Academic calendar for the student.
6. Provide access to forms the student uses for Advanced Imaging Rotations and Evaluations.
7. Provide access to the school's clinical plan.

When they enter the program, each student is enrolled in the Trajecsys system. An orientation is given to students on the Trajecsys system by the Clinical Instructor when the clinical plan is reviewed during the student's first semester. The student only has access to the tracking system while enrolled in the school.

Pregnancy Policy

The National Council of Radiation Protection Report #116 is the latest in a series of reports on basic radiation protection criteria, including simplification of limits aimed at controlling exposure. Once a pregnancy has become known, exposure of the embryo-fetus shall be not greater than 0.5 mSv (.05 rem) in any month (excluding medical exposure)."

The school, in keeping with the above recommendations, implements the following policy concerning student pregnancy. The purpose of this policy is not only to provide for the well-being of the unborn, but also to assure the quality of education provided to the pregnant student.

A student who becomes pregnant at any time during the 24 months of their education is *not* required to declare their pregnancy but is encouraged to voluntarily inform the Program Director to ensure that the student is provided appropriate education regarding radiation and pregnancy and so that the student and the school can take appropriate action to limit monthly embryo-fetus dose in compliance with NCRP regulations.

If the student chooses to declare her pregnancy, she must:

1. Provide a written notice to the Program Director of voluntary declaration.
2. Set up an appointment with Trinity's RSO for radiation safety counseling. The student will be required to sign a statement that she understands any radiation risks involved. Information regarding the pregnant student will be held in strict confidence by the Program Director and RSO.

Once a pregnancy has been declared the student has two options:

1. Continuation of enrollment without any modification.
2. Request a leave of absence (Refer to Leave of Absence policy). Note should be made that the student may withdraw a declaration of pregnancy at any time by providing a written statement to the Program Director.

Failure to complete the clinical and didactic courses and the clinical competency requirements of the program would make the student ineligible for graduation and ineligible to write the American Registry of Radiologic Technologists examination.

Although it is the policy of this program to offer the utmost in radiation protection to the student, the school and Trinity Health will not be responsible for any perceived injury to the mother or the embryo-fetus due to radiation exposure during pregnancy.

_____ _____

Name Date

I have read the above policy, understand it and agree to adhere to it.

Communicable Disease Policy

All students are required to participate in and complete the Infection Control training programs at Trinity Health. This training is initially provided to newly enrolled students during their orientation period and will be reinforced during their training through the "Infection Control" unit in the Patient Care curriculum and also through mandatory hospital inservices.

Any questions concerning communicable disease and infection control both related to student illness and contact with patients will be referred to Trinity's Infection Control Officer. Any actions taken will be in consult with their recommendation and in compliance with existing hospital Infection Control Policy.

A student who contracts a communicable disease is to report this condition to the Program Director or Clinical Instructor. The student, depending on his\her condition, may be required to see a physician and be absent from the program until the contagious stage of the disease passes. The student is required to obtain a note from his\her physician stating that he/she may return to the patient contact area. If the student is unable to meet the deadlines of the School due to a communicable disease, the guidelines laid forth in the Long Term Disability Policy will be followed.

To protect both patients and students from the spread of infectious disease, the CDC's STANDARD PRECAUTIONS are enforced.

Gloves must be worn when:

a. Touching any blood or body fluids, mucous membranes, or non-intact skin
b. Handling items or surfaces soiled with blood or body fluids
c. Performing venipuncture and other vascular access procedures
d. Removing needles used to inject contrast

Gloves must be removed after caring for the patient. Do not wear the same pair of gloves for more than one patient.

Gowns or Protective aprons are to be worn when soiling of own clothes appears likely.

Hand washing is the most effective means of controlling the spread of disease. Wash or decontaminate hands before and after patient contact. Alcohol based agents are recommended to decontaminate hands if hands are not visibly soiled. Hand washing with antimicrobial soap is indicated when hands are visibly soiled with blood, body fluids, or any other visible materials.

Procedure for handwashing:

1. Wet hands with water
2. Apply soap
3. Rub hands together for at least 40–60 seconds (covering all surfaces)
4. Rinse with water
5. Dry with disposable towel
6. Use towel to turn off faucets

Procedure for decontamination:

Apply product to palm of one hand and rub hands together, covering all surface of hands and fingers until hands are dry

Guidelines for decontamination:

— Before and after direct contact with patients
— Before and after gloving
— After contact with inanimate objects in the immediate vicinity of the patient
— NOTE: In the above situations hand washing with antimicrobial soap is an acceptable alternative

Miscellaneous hand hygiene:

— Do not wear artificial nails
— Keep nails a reasonable length

Needles and sharps must be handled carefully to prevent injury

— Needles should NOT be recapped, purposely bent or broken. If recapping can not be avoided, a one-handed technique should be used
— After use, sharps must be placed in the appropriate puncture resistant container

In the event of a needle stick, the student shall immediately wash area with soap and water and then report to the Emergency Room where hospital protocol will be followed.

Reasonable Accomodation Policy

Trinity Health Radiologic Technology Program abides by the policy set forth by Trinity Health on reasonable accommodations. The policy is set forth below:

Under the law, Trinity Health will provide reasonable accommodation to qualified employees and applicants with disabilities, as defined by the ADA/Rehabilitation Act and ADA Amendments Act of 2008 *(ADAAA)*, unless to do so would pose a direct threat to health or safety or would cause undue hardship *(e.g., too costly, too extensive, too substantial, too disruptive)*. All references to "disability" in this policy refer only to those impairments that meet the ADA/Rehabilitation Act definition of "disability" as amended by the ADA Amendments Act of 2008 *(ADAAA)*. Trinity Health is committed to providing reasonable accommodations to qualified employees and applicants for employment to ensure that individuals with disabilities enjoy equal access to all employment opportunities. We provide reasonable accommodations:

- when an applicant with a disability needs an accommodation to have an equal opportunity to compete for a job;
- when an employee with a disability needs an accommodation to perform the essential functions of the job or to gain access to the workplace; and
- when an employee with a disability needs an accommodation to enjoy equal access to benefits and privileges of employment *(e.g., training, company events, etc.)*

ACCOMMODATIONS

Employees or applicants who require a reasonable accommodation MUST request an accommodation by contacting HR.

An HR Representative will handle all accommodation needs. For the purposes of this policy, the "HR Representative" may be the HR Director, VP of HR, or other HR representative designated to assist with reasonable accommodation requests and can be reached at 701-857-5191.

Managers and supervisors who receive an accommodation request from an employee **MUST** consult HR about accommodation needs. The HR Representative will work with the employee's supervisor on appropriate reasonable accommodations to meet the individual's disability-related needs and enable them to perform the functions of the position.

As part of the accommodation interactive process, the HR Representative will obtain and evaluate documentation supporting an accommodation request *(such as medical documentation demonstrating that the requestor is an individual with a disability)*, whenever the disability or need for accommodation is not obvious. If an individual has previously submitted medical documentation, the individual should immediately inform the HR of this fact.

Management personnel will be a crucial part of the accommodation process and therefore must be familiar with this policy.

THE INTERACTIVE PROCESS

After a need for accommodation is known, your HR Representative will want to discuss ideas to help with an accommodation. Communication is important to us in finding out the precise nature of the problem that is generating the request, how a disability is prompting a need for an accommodation, and alternative accommodations that may be effective in meeting an individual's needs. If the disability is obvious *(e.g., the requestor is blind or has paraplegia)* or already known to TH *(e.g., the requestor previously asked for an accommodation and information submitted at that time showed a disability existed and that there would be no change in the individual's medical condition)*, we may or may not need further medical documentation.

The HR Representative may need to consult with other TH personnel *(e.g., an employee's supervisor, Information Technology staff)* or outside sources to obtain information necessary to make a determination about your accommodation need.

The HR Representative will advise you of the decision regarding your workplace accommodation need. If it has been approved, an implementation plan will be set in place to support your request. If it is not approved, an explanation for the basis of the denial and information on next steps will be offered.

QUESTIONS

Additional information may be found in the following policies:

- Family and Medical Leave or FMLA
- WSI – Workforce Safety and Insurance and Injuries
- Equal Employment Opportunity

An individual dissatisfied with the resolution of their need for reasonable accommodation may consult the VP of Human Resources within 10 business days of receiving a final response.

Patient Transport Safety Policy

Due to the fact that a patient's condition can change very rapidly, it is important the transporter be able to handle emergency situations that could occur. In fairness to the patient, the patient's family, the technologists and our students, the following policy will be adhered to:

No student shall transport a patient ALONE until they are CPR certified. A student who is not CPR certified may assist in patient transport with a CPR certified technologist, transporter or senior student. All new students shall become CPR certified within one month of the school start date.

Student Employment Policy

Students who seek outside employment or who are employed during in the two year radiologic program are cautioned to avoid excessive work schedules that may interfere with their academic and clinical performance. Adjustments to the student schedule to accommodate outside employment will not be made.

Any paid employment by Trinity Health during the term of the student's enrollment is beyond the control of the school and is thus a separate entity from the structured clinical experience. The school will not be held libel for any incident that may occur while the student is employed by Trinity Health.

Signature Page
(For enrolled students only)

I have received a copy of the policies and procedures of the Trinity Health Radiologic Technology Program, Clinical Education Plan, and the JRCERT Standards. I have also been given an opportunity to question any policies or standards and was given further explanations or clarifications as needed.

I _____ agree to adhere to all policies of the school and Trinity Health.
(print name) For enrolled students only

_____ _____ _____
Signature Date Time

TRINITY HEALTH

Appendix A
Clinical Education Plan

TRINITY HEALTH

Trinity Health
Radiologic Technology Program

Clinical Education Plan

Revised 2019

Table of Contents

Introduction

The Trinity Health Radiologic Technology Program is an outcome-based educational program with the primary focus on competency achieved through mastery level learning. Integration of classroom and clinical education is an important element in the success of this school and its graduates. The clinical experience is designed to maximize patient contact in the performance of radiography. Students progress from observing, to assisting, and then performing radiologic examinations. Students are supervised by registered radiologic technologists and JRCERT approved Clinical Instructor(s).

The School operates on a year-round schedule of 3 semesters, which range from 10 - 18 weeks long. The school week runs from Sunday through Saturday. The student schedule is designed to never exceed 40 hours per week combined clinical and classroom time. Regularly scheduled hours for student assignments vary. The majority of assignments are Monday–Friday from 8 a.m.–4 p.m. and 9 a.m.–3 p.m. Other assignments include: a 1–9 p.m. clinical rotation, 10 am–6 pm late surgery/ portable rotation, and a 6:30 am–2:30 pm early surgery/portable rotation. The student is also assigned to clinical weekends (Saturday and Sunday) after completing their first semester. The student is given the Friday off prior to, and the Friday off after their weekend to ensure that they do not exceed 40 hours in a week. The weekend assignment may be either a 7 a.m.–3 p.m. or a 1–9 p.m. rotation. The schedule is planned out so that time spent in pm and weekend rotations does not exceed the requirements set forth by the JRCERT. The student schedule is planned on a yearly basis; therefore the Junior student will receive their own schedule for the school year during the first week of class. The incoming Senior student will receive their schedule for the next school year four weeks prior to the start of the fourth semester.

The student schedule is also designed to not conflict with didactic classroom time. Didactic classes are scheduled Monday through Thursday in two full day sessions, two for Seniors and two for Juniors. Classroom times are from 9 a.m. to 3 p.m., with a lunch break mid day.

The student's clinical education takes place exclusively on the Trinity Health Campus, which includes a Level II trauma center and hospital, and 3 other Trinity Health clinical sites: Health Center – Medical Arts, Trinity Health South Ridge, and Health Center – Town & Country. The student's clinical education includes an in-depth exposure to routine radiography, fluoroscopy, portable radiography, and surgical radiography. The student's education also provides introductory assignments in medical imaging specialty areas of MRI, CT, Ultrasound, Radiation Therapy, Nuclear Medicine, Cardiovascular Imaging, Interventional Radiology, PET, Mammography and DEXA.

Each student will receive their own copy of the Clinical Education Plan which is designed to lay out all the School's clinical requirements that the student must fulfill in order to graduate from this program and become eligible to sit for their ARRT certification exam. This Plan should be kept in the Clinical Instructor's office, for easy student access. Each student will receive a Semester Objective Assignment Book and a Semester exam Log Book, both must be kept on the Student at all times. The Semester Objective assignment book contains the check-offs each student must complete as well as other assignments pertinent to that semester's clinical assignments. This semester objective book must be completed and handed into CI at the end of each semester. The Semester Exam Log Books are used to record exams performed on a daily basis.

Glossary

(The following terms are common place in radiologic technology schools. Students should become familiar with the following terminology.)

Competency:	An exam performed under direct supervision.
Proficiency:	An advancement in knowledge and skills that is acquired by repeated performance of competencies, and the student is allowed to function under indirect supervision.
Direct Supervision:	A radiologic technologist remains with student during every phase of the examination.
Indirect Supervision:	A radiologic technologist is immediately available to assist the student during every phase of the examination.
Laboratory:	A work area/time scheduled for demonstration of clinical skills and practicing of those skills by the students.
Integration:	The system by which the didactic and clinical objectives are designed to correlate, and complement each other to enhance student learning.
Course Outcomes through *Assessment:*	A statement of the specific outcome the student is expected to achieve. Achievement is attained the completion of "performance indicators."
Performance Indicators:	A listing of the specific knowledge that a student is expected to perform, achieve and retain (ie. goals).
Student Learning Outcome:	The grading and/or assessment of the student. Learning outcomes are assessed through the following mechanisms: 1) Clinical testing — a method of assessing and grading the student's learning of clinical skills, problem solving ability and critical thinking skills performed in simulation without exposures being made. Must be passed before the student is allowed to perform this exam on patients. 2) Performance evaluation — a method of assessing and grading the student's ability to perform radiologic examinations on patients in accordance with the clinical objectives, and also assessing the resulting images produced. The school requires each student to complete the same number of performance evaluations. The specific number and type of exams are set forth in this plan. 3) Professional development — tools to assess and grade the affective domain in the clinical setting. This grade is incorporated into the semester evaluation assessment. The grade is based upon the Clinical Instructors evaluation attained through observation and technologist's input. 4) Final testing — mastery level testing which challenges the students previously learned knowledge and critical thinking skills performed in the student's final two semesters. 5) Didactic testing — written testing designed to assess cognitive knowledge of course content, problem solving and critical thinking abilities.
ARRT Competencies:	The American Registry of Radiologic Technologists requirements for certification eligibility. These competencies are incorporated into the curriculum and this clinical plan.
Mandatory ARRT Procedure:	Students must demonstrate competency in all 37 Radiological Procedures identified as mandatory. Procedures should be performed on patients whenever possible. A maximum of eight mandatory procedures may be simulated if demonstration on patients is not feasible.
Elective ARRT Procedure:	Students must demonstrate competency in 15 of the 34 elective Radiological procedures. Elective procedures should be performed on patients whenever possible, but electives may be simulated if demonstration on patients is not feasible. Of the 15 elective procedures: one must be from the head section, one must be either a UGI or a Contrast Enema, and one other elective must be from the fluoroscopy section.

Clinical Education Plan

STUDENT LEARNING OUTCOME

The school of radiologic technology is a learning outcomes, competency-based program. Our goal is, upon successful completion of this 23 month program, that the graduate will function at or beyond the career entry level. To accomplish this goal, the student must successfully complete all required program outcomes. All clinical courses have an outcomes assessment statement that is evaluated through the student's achievement of the course performance indicators.

The primary learning outcome of clinical education is to develop student competence in the practice of radiologic technology. The following performance indicators apply to all clinical courses.

PERFORMANCE INDICATORS

The student will:

1. Observe / Assist / Perform radiographic examinations in the assigned clinical area, in accordance with the level of competency achieved.
2. Present a professional appearance.
3. Display professional conduct, and be able to act with discretion.
4. Demonstrate the ability to work and communicate effectively with fellow students, technologists, and others in the clinical area.
5. Adhere to department and hospital rules.
6. Demonstrate punctuality and efficiency in clinical assignments.
7. Consistently utilize radiation protection procedures and devices.
8. Provide for the physical and psychological needs of the patient.
9. Provide for differences in age specific competencies and ethnic and cultural diversity.
10. Demonstrate initiative, intellectual curiosity, and adaptability in the mastery of skills and performance of procedures.
11. Recognize his/her limitations in knowledge and seek assistance as required.
12. Adhere to supervision policy. The student is responsible for insuring they are supervised properly. If proper supervision is not available the student is not allowed to perform examinations.

INTEGRATION

Integration of didactic instruction and clinical experience is essential to the success of the student and the program.

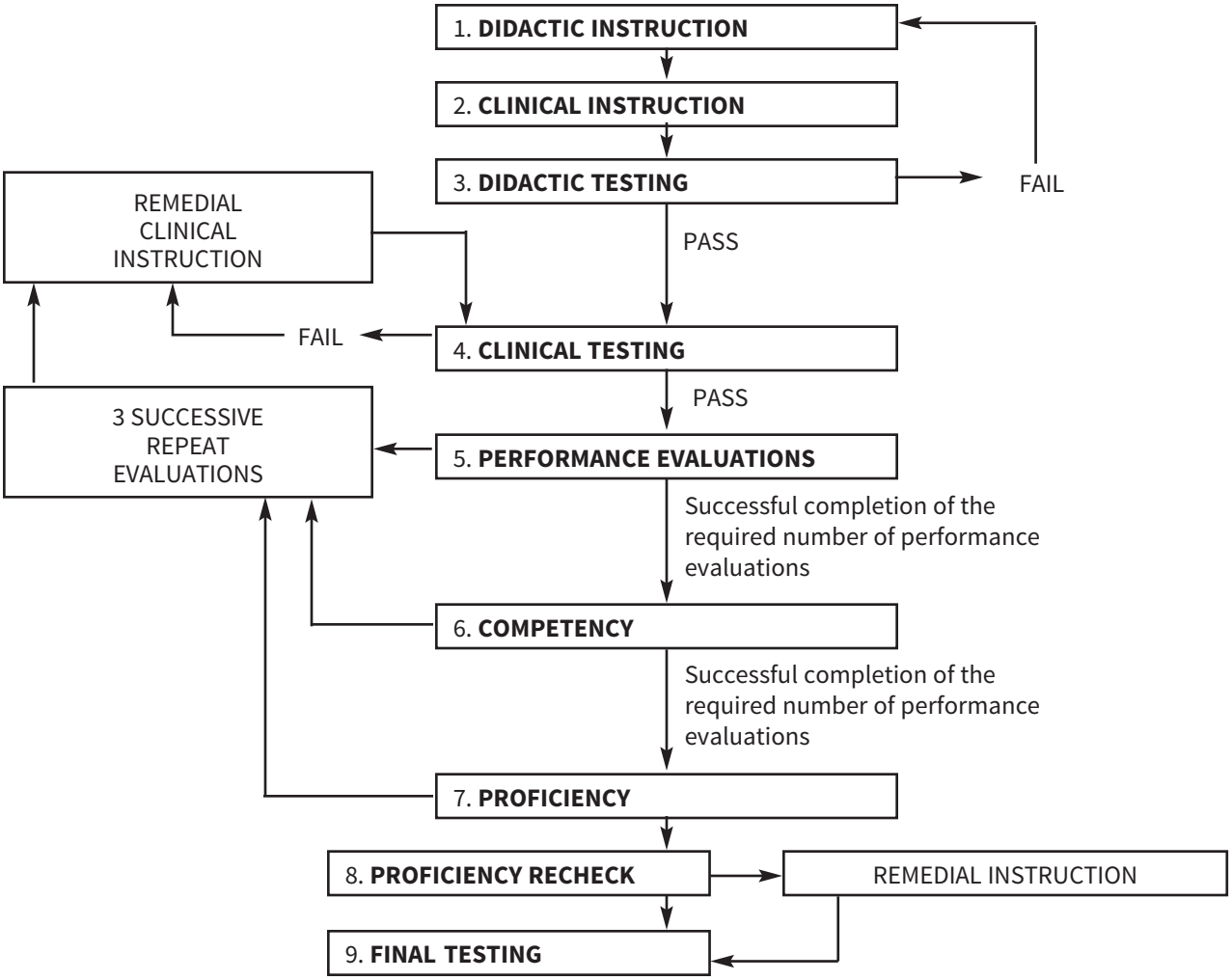
In correlation with didactic instruction of required Anatomy and Positioning units, the student attends clinical laboratory instruction. During lab periods, the Clinical Instructor will demonstrate each projection and provide time for simulated practice of demonstrated skills. Following successful didactic testing, the student is allowed sufficient time to practice positioning skills in simulated clinical lab settings, prior to beginning the process of student clinical learning outcomes assessment.

The first step in student assessment is clinical testing, which is accomplished in a simulated laboratory setting by the Clinical Instructor. Each syllabus contains the list of clinical testing requirements for that course. The student is required to pass each exam with 80% accuracy. If a student fails a simulated clinical test, they are tutored and must repeat the exam. The second test score is recorded and identified with an (R) behind it. Upon successful completion of clinical testing, the student will advance to Performance Evaluations.

The second step in clinical learning outcome assessments is Performance Evaluations. Performance Evaluations are actual graded exams performed on patients under appropriate supervision levels. All required competencies and proficiencies are listed in each appropriate course syllabus. Since failure is part of any learning process, all failures are dealt with as a learning tool. Students are required to complete a Performance Evaluation Form for each graded exam. Three successive repeat Performance Evaluations for a particular radiographic examination results in remedial Clinical Instruction.

Completion of the outcome assessments of our competency-based program is final testing. In the students' last two semesters, they will be re-tested on areas chosen at the discretion of the Clinical Instructor. Final testing also facilitates a final check of the students ability to problem solve and think critically.

Integration Flow Chart



STEP 1: **Didactic Instruction**
Classroom lectures/discussions are held to introduce the students to the assigned unit of anatomy and positioning.

STEP 2: **Clinical Laboratory Instruction**
The projections discussed in the classroom are demonstrated by simulation by the clinical instructor. The students are also allowed practice time for performing their positioning skills.

STEP 3: **Didactic Testing**
A written test is administered to evaluate the cognitive learning of the students. Achieving an 80% on this exam is required to proceed to the next step.

STEP 4: **Clinical Testing**
Students are tested on their cognitive, critical thinking and psychomotor clinical skills by simulating the performance of radiographic examinations. No actual exposures are made. Achieving a 80% on the clinical test is required before students are allowed to perform the radiographic examination of patients.

STEP 5: **Performance Evaluations**
Following successful completion of clinical testing, the student is allowed to perform radiographic examinations on patients, under the direct supervision of a radiologic technologist. All graded radiographic examinations performed by the student require a completed Performance Evaluation. The Performance evaluation is comprised of three componets 1) Student Input 2) Technologist component and 3)Clinical Instructor component. The student's clinical abilities, critical thinking skills and the resulting images are evaluated and recorded in Trajecsys by the supervising registered technologist. The Clinical Instructor then further evaluates the student's images, and completes the Clinical instructor component in Trajecys. Students must achieve 80% or better to pass the performance exam. Performance Evaluations are designed to grade the cognitive, psychomotor and affective domains. Students must maintain an 80% or better cumulative average on their performance evaluations.

STEP 6: **Competency**
A minimum number of radiographic examinations of each type is required to be performed under direct supervision. After successful completion of this number, the student is declared "competent" in this exam and is then allowed to perform all subsequent exams under indirect supervision.

STEP 7: **Proficiency**
Following competency, the student is required to perform a set number of examinations under indirect supervision of a technologist. Successful completion of the required number of performance evaluations under indirect supervision completes the clinical requirement for that particular radiographic examination. Proficiency is a requirement which must be met prior to final testing and before graduation. Student must achieve an 80% or better to pass a proficiency exam, and maintain a cumulative average of at least 80%.

STEP 8: **Proficiency Recheck**
Students must achieve 80% or better to pass a proficiency recheck.

STEP 9: **Final Testing**
During the last two semesters, the student is required to perform final examinations to prove entry level competency, problem solving ability, and critical thinking skills. These areas are selected by the Clinical Instructor. Final testing is mastery level and is a requirement that must be met for graduation.

Student Learning Outcome – Clinical Testing

PURPOSE: To assess the clinical ability of the student to perform radiographic examinations in simulation, prior to performing the exam on a patient in the clinical setting.

POLICY/PROCEDURE:

1. Clinical tests are administered by the Clinical Instructor.

2. Clinical testing occurs in the laboratory following the administration of didactic testing on the assigned Anatomy and Positioning course, after laboratory demonstrations, and adequate time to practice positioning skills. (see Education Plan flow chart)

3. Clinical tests will usually be held during the designated Clinical class time, however testing may be done at the instructors discretion.

4. Clinical tests will not include actual exposure, but all other clinical objectives must be met in testing.

5. Clinical tests may include interpretation of images of the tested projections, as required by the Clinical Instructor. Oral quizzing may also be required.

6. Successful completion of the Clinical Test for a radiographic examination is a pre-requisite for performing that exam on patients.

7. Grading Policy for Clinical Tests:
   Each projection tested in a positioning unit is awarded a maximum of 28 points. The total number of points possible for each unit depends upon the number of tested projections. A percent and letter grade is awarded to the student upon completion of testing on all of the projections within that unit.

   $$\text{Percent grade} = \frac{\text{total number of points scored}}{\text{total number of points possible}}$$

   Grade scale:
   100 - 94% = A
   93 - 86% = B
   85 - 80% = C
   79 - 0% = F

   Students must maintain a 80% cumulative clinical testing grade average, or are subject to disciplinary procedures. (see Discipline Policy)

Clinical Grading of Student Learning Outcomes

CLINICAL TESTING

Upon completion of all clinical testing for each clinical course the student receives a cumulative clinical test grade for that course. This grade will be reflected on their transcript.

SEMESTER CLINICAL GRADE

Students receive a clinical grade that is twofold:

1) *Completed Clinical Performance Evaluations* accomplished during that semester are cumulatively totaled and account for 90% of the student's semester grade. A student is required to submit Clinical Performance Evaluations on all exams until proficiency is achieved.
2) *Professional Development*. Each semester the Clinical Instructor evaluates the student's affective behavior while in the clinical setting. This evaluation accounts for the remaining 10% of the student's semester grade.

FINAL TESTING

The student's grade for the final two semesters also reflects Final Testing. Final testing is a method of assuring that the student is maintaining proficiency level clinical skills. It is based on mastery learning. The student must achieve an 80% cumulative grade, averaged between the exams final tested on.

TRAJECSYS REPORT SYSTEM

Each student, when they enter the program, is enrolled in the Trajecsys system. An orientation to the Trajecsys system is given by the Clinical Instructor when the clinical plan is reviewed during the student's first month of class. The student only has access to the tracking system during their time enrolled in the school. For more details on Trajecsys, please see the Student Policy Manual.

This system is currently used to:

1. Monitor the students in and out punches to their clinical sites to validate hours spent in the clinical area.
   AT <u>NO TIME</u> IS A STUDENT TO USE THEIR CELL PHONE TO CLOCK IN/OUT.
2. Provide an online Log of exams done for competency and proficiency.
3. Provide the student access to competency evaluations done by the supervising technologists and the clinical instructor.
4. Provide the student access to comments made by supervising technologists and the clinical instructor on their competency evaluations.

Clinical Schedule

The Clinical Master Schedule is made on a yearly basis and is designed to operate on three semesters per year, with the clinical week running from Sunday to Saturday. All shifts are 8-4pm unless otherwise specified.

CLINICAL LOCATION	Assigned clinical rotation at location	
Trinity Hospital		
A	R/F room	
B	Radiographic room	
C	R/F room	
S	Surgery	
P	Portable	
E-S/P	Early - Surgical/portable	6:30-2:30pm
L-S/P	Late – Surgical/portable	10:00-6:00pm
RAD	Follow Radiologist on a Friday	
CT-H	CT	
MRI-H	MRI	
NUCMED	Nuclear Medicine	
Cath Lab	Cath Lab	
IR	Interventional Radiology	
Front Desk	Radiology reception area	
Office/Transport	Radiology Office and help Transport patients as needed	
CHOICE	Senior semester option (student can choose rotation with CI approval)	
ON	Weekend 7:00 a.m.-3:00 p.m. Student is scheduled off the Friday before and after the weekend	
PM	1-9:00 p.m. rotation. If student PM rotation includes a weekend, student is scheduled off the Friday before and after the PM weekend rotation.	
Nights	Students are *not required* to work nights but may request it from the Clinical Instructor. The request will be granted only if the shift and time off for the shift do not interfere with the student's academic schedule. The student may only do 2 nights shifts during their Clinical Experience.	
Health Center – West Orthopedics	Orthopedic Clinic (connected to Trinity Hospital via a Skywalk)	
Health Center – Town & Country (831 South Broadway)		
AIC	Diagnostic radiography room	
CT-AIC	CT at Advanced Imaging Center	
MRI-AIC	MRI at Advanced Imaging Center	
US	Ultrasound at Advanced Imaging Center	
PET	PET at Advanced Imaging Center	
Therapy	Cancer Care Center	
Health Center – Medical Arts (400 Burdick Expwy East)		
MAC	9:00 a.m.-5:00 p.m.	
M	Mammo Friday	
DEXA	9:00 a.m.-5:00 p.m.	
US	Ultrasound	
Trinity Hospital – St. Joseph's (Medical Arts and TH-SJ are connected by a Skywalk and a Tunnel)		
SDS-SJ	Surgery at Same Day Surgery	
Trinity Health South Ridge (1500 24th Ave SW)		
SR	Pain Center Location	

During the student's Junior year, they will rotate through the following Advanced Imaging Modalities:
Cath Lab/Interventional Radiology, Radiation Therapy, CT -AIC, Nuclear Medicine-PET, and MRI- AIC.

During the student's Senior year, they will rotate through the following Advanced Imaging Modalities:
DEXA, Mammography, CT-AIC, CT-H, MRI-H, Cath Lab, Interventional Radiology, Radiation Therapy, and Ultrasound.

All prerequisite coursework must be met prior to Advanced Imaging Modality rotations. This coursework is outlined in the section for Advanced Radiographic and Medical Imaging Clinical Rotations and in the Course Descriptions in the Policy Manual.

Clinical Examination

DATE:_____ STUDENT:_____

CLINICAL INSTRUCTOR:_____ PROCEDURE:_____

	PROJECTIONS TESTED ON								
	1	2	3	4	5	6	7	8	9
Patient Care									
Equipment Utilization									
Positioning Skills									
Radiation Protection									
Work Efficiancy									
IR Usage									
Identification									
TOTAL	28	56	84	112	140	168	196	224	252

Scoring:
(each projection is worth a total of 28 points)
0 = not acceptable
2 = Improvement needed.
3 = Meets expectations with minimal assistance/adjustments
4 = Exceeds expectations, no assistance needed.

COMMENTS:

GRADE
Total points scored_____
Total points possible_____

Clinical Exam Score:_____

Grading Scale:
A = 100-94% B = 93-86% C = 85-80% F= below 80%

If a student does not achieve a passing grade, review will be done, and the student will be retested with the second score being recorded with an R behind it.

STUDENT SIGNATURE: _____

Clinical Examination Criteria:

1. PATIENT CARE
   a. assist patient to table, chest stand, etc.
   b. explain the procedure
   c. give proper instructions for moving and breathing
   d. other

2. EQUIPMENT UTILIZATION
   a. manipulate the tube/bucky adequately
   b. select correct exposure factors
   c. proper SID employed
   d. other

3. POSITIONING SKILLS
   a. correct patient position
   b. correct part position
   c. CR centered correctly
   d. patient obliqued correctly (if applicable)
   e. correct CR angulation
   f. use of immobilization techniques
   g. other

4. RADIATION PROTECTION
   a. cone or collimate to part
   b. shield patient when appropriate
   c. select proper exposure factors
   d. other

5. WORK EFFICIENCY
   a. organized progression of projections
   b. 5 minutes allowed/projection
   c. all appropriate supplies for exams obtained

6. IMAGE RECEPTOR
   a. correct size
   b. correct placement
   c. proper use of grid
   d. other

7. IDENTIFICATION
   a. Annotation/markers properly placed
   b. Annotation/markers not obscuring anatomy
   c. other

Comments:

Student Learning Outcome — CLINICAL TESTING REQUIREMENTS Student:_____

RESPIRATORY-THORAX
Chest
PA
Left Lateral
Decubitus
Wheelchair
AP & Lateral
Stretcher
AP & Lateral
Portable
40" and 72"
Ribs
PA Chest
Above Diaphragm-Uprt
AP
RPO & LPO
PA
RAO & LAO
Below Diaphragm
AP recumbent
RPO & LPO
Sternum
RAO
Lateral
Soft Tissue Neck
AP
Lateral
UPPER EXTREMITY
First Digit
PA
AP
Oblique
Lateral
Second Digit
PA
Oblique
Lateral
Hand
PA
Oblique
Lateral (fan, extension, and flexion)
Wrist
PA
Oblique
Lateral
Scaphoid-PA
Scaphoid- Stecher
Forearm
AP
Lateral
Elbow
AP
Lateral
Medial Oblique
Lateral Oblique
Axio-lateral-Coyle
Humerus
AP
Lateral
Shoulder
AP-Internal
AP-External
Axillary
Y-view
Y-View-Neer Method
Transthoracic
AP-Neutral
Glenoid Fossa-Grashey
Clavicle
AP
AP Axial
PA Axial
Scapula
AP
Lateral
LOWER EXTREMITY
Toes
AP
Oblique
Lateral
Foot
AP
Medial Oblique
Lateral
Calcaneus
Axial
Lateral
Ankle
AP
Mortise
Medial Oblique
Lateral
Low Leg
AP
Lateral
Knee
AP
Lateral
Camp-Coventry
Beclere
Settegast
Femur
AP
Lateral
Hip
AP
Lateral w/ horizontal CR
Frog-lateral
Pelvis
AP
AP-frogleg
Inlet
Outlet
Judet
RPO
LPO
DIGESTIVE SYSTEM
UGI
PA
RAO
LPO
Right Lateral
Contrast Enema
AP Axial
AP
RPO/LAO
LPO/RAO
Left Lateral
Left Lateral Decubitus
Right Lateral Decubitus
PA
PA Axial
Esophgram
AP
LAO
RAO
Right Lateral

CLINICAL TESTING REQUIREMENTS (continued)

STUDENT: _____

Small Bowel	SKULL-FACIAL BONES	URINARY
AP Scout	**Skull**	**IVU - Demo do not test**
PA 0-minute	PA	KUB
PA 30-minute	PA Axial-Caldwell	Kidney cone down
Abdomen	AP-Axial Towne	RPO-KUB
AP Recumbent	Right Lateral	LPO KUB
AP Upright	Left Lateral	RPO-15 degree bladder
Lt Lateral Decub	SMV	LPO-15 degree bladder
Bladder	**Facial Bones**	**Cystogram - test**
VERTEBRAL COLUMN	PA	AP axial-15 degree
Cervical Spine	PA Axial-Caldwell	RPO-60 degree
AP Axial	Parietoacanthial	LPO- 60 degree
Odontoid	Parietoacanthial-modified	Lateral
Lateral-neutral	Right Lateral	
Lateral-flexion	Left Lateral	
Lateral-extension	**Nasal Bones**	
LPO/RAO	Parietoacanthial	
RPO/LAO	Right Lateral	
Swimmers	Left Lateral	
Trauma C-Spine	**Sinuses**	
AP-Axial recumbent	PA Axial-Caldwell	
Fuchs	Parietoacanthial	
Lateral w/ horizontal CR	Parietoacanthial-modified	
Swimmers	Lateral of affected side	
RPO	**Mandible**	
LPO	PA	
Thoracic Spine	PA Axial-Haas	
AP	Axiolateral-Right	
Lateral	Axiolateral-Left	
Swimmers	**Orbits**	
Lumbar Spine	PA Axial 30 degree	
AP	Lateral	
RPO	**Zygoma**	
LPO	AP Tangential	
Lateral	**TMJ's**	
Lat L5-S1 Conedown	Axiolateral-Schuller	
AP L5-S1 Conedown	Axiolateral modified Law	
Sacrum	**Trauma Skull**	
AP Axial	AP	
Lateral	AP Axial-Caldwell	
Coccyx	AP Axial Towne	
AP Axial	Lateral-Cross-table	
Lateral		
Sacro-Iliac Joint		
RPO/LPO		
RAO/LAO		

Student Learning Outcome
Clinical Performance Evaluation

PURPOSE: To assess the student's ability to perform radiographic examinations on patients.

POLICY:

1. The student will fill out an exam slip for every competency and proficiency patient exam they perform.

2. The student will enter this information into Trajecsys. The student will enter it under the Patient information- Student input portion of the competency evaluation. The evaluations are found under the Assessment tab in Trajecsys.

3. The technologist, who supervised the student, will grade the students' performance in Trajecsys under the Technologist component of the competency evaluation. Additional comments may be made in Trajecsys concerning the students' performance. If the technologist feels that the student needed too much assistance to perform the exam, and should not be writing up the exam, than the technologist can refuse to complete the evaluation in Trajecsys.

4. The clinical instructor will then review the Technologist component of the evaluation, images and complete the clinical instructor component of the competency evaluation.
   A grade will automatically be populated in Trajecsys.

5. Grading policy:
   Students must maintain an 80% cumulative clinical grade. Any student who produces three successive Clinical Performance Evaluations with a grade of 79% or less for a particular radiographic examination is required to complete remedial clinical instruction. The student must be successful in repeat clinical testing prior to performing that examination on patients.
   100 - 94% = A
   93 - 86% = B
   85 - 80% = C
   79 - 0% = F

6. All exams that a student submits for competency and proficiency must also be entered in the student's individual Log portion of Trajecsys.

7. Competency: The achievement of the required number of Performance Evaluations for a radiographic procedure documents the competency of the student to perform subsequent examinations for proficiency under indirect supervision.

8. Proficiency: The achievement of the required number of the Performance Evaluations for proficiency documents that the student has achieved a higher level of performance, and has completed the clinical requirements for that procedure.

Clinical Performance Requirements

EXAM	ARRT STATUS	TOTAL REQUIRED	COMPE-TENCY	PROFI-CIENCY
RESPIRATORY SYSTEM				
Routine chest	M	8	4	4
Portable chest	M	8	4	4
Wheelchair chest	M	4	2	2
Cart chest	M	6	3	3
Miscellaneous		1	1	0
UPPER EXTREMITY				
Thumb/Finger	M	5	3	2
Hand	M	5	3	2
Wrist	M	5	3	2
Forearm	M	5	3	2
Elbow	M	5	3	2
Humerus	M	5	3	2
Shoulder w/axillary	M	5	3	2
Trauma Shoulder/transthoracic	M	1	1	0
Clavicle	M	2	1	1
Trauma-non shoulder	M	5	3	2
ARRT Electives	ME	1	1	0
Miscellaneous		5	3	2
LOWER EXTREMITY				
Foot wt bearing		4	2	2
Foot recumbent	M	4	2	2
Ankle	M	5	3	2
Tibia/Fibula	M	5	3	2
Knee (4 view recumbent)	M	4	2	2
Knee (3 view or upright)		4	2	2
Femur	M	5	3	2
AP Hip	M	2	1	1
Lateral Hip (Horizontal CR)*	M	4	2	2
AP Pelvis recumbent	M	5	3	2
Trauma LEM	5	3	2	
ARRT Electives	ME	2	1	1
Miscellaneous		5	3	2
VERTEBRAL				
Cervical spine (3–7 views)	M	4	2	2
Thoracic spine (2-3 views)	M	5	3	2
Lumbar Spine (AP, Lat, L5-S1)	M	2	1	1
Lumbar spine (5 v.)	M	3	2	1
Lateral Spine Horizontal CR*	M	1	1	0
ARRT Electives	ME	2	2	1
Miscellaneous		5	3	2
BONY THORAX				
Thorax	M	5	3	2
SKULL				
Miscellaneous		1	1	0
Elective	ME	2	1	1
DIGESTIVE SYSTEM				
Abdomen, supine	M	8	4	4
Abdomen, upright	M	8	4	4
Abdomen, portable	M	8	4	4
Abdomen, Elective	E	1	1	0
Upper GI	E	5	3	2
Esophagram (not Modified)	E	3	2	1
Small Bowel	E	5	3	2
Misc. Digestive		3	2	1

EXAM	ARRT STATUS	TOTAL REQUIRED	COMPE-TENCY	PROFI-CIENCY
PHYSICIAN ASSIST EXAM				
Assist exam		16	8	8
Elective Fluoroscopic Exam				
	ME	4	2	2
C-ARM/PORTABLE				
C-arm, (hip or femur rodding)		5	3	2
C-arm, Sterile/Surgical Field	M	15	8	7
Portable Ortho exam	M	10	5	5
Pain Injections @ SR		8	4	4
C-ARM AT ORTHO CLINIC				
C-arm > or =2 projections	M	3	2	1
Children (Age 6 or Younger)				
NICU Chest		8	4	4
Chest routine	M	5	3	2
Upper Extremity	E	5	3	2
Lower Extremity	E	5	3	2
Abdomen	E	5	3	2
Portable	E	5	3	2
Geriatric (Age 65 or Older)				
Chest routine	M	4	2	2
Upper Extremity	M	4	2	2
Lower Extremity	M	4	2	2
General Patient Care				
CPR	M			
Vital Signs				
Blood Pressure	M			
Temperature	M			
Pulse (Heart Rate)	M			
Respiration	M			
Pulse Oximetry	M			
Sterile & Medical Aseptic Technique	M			
Venipuncture	M			
Transfer of Patient	M			
Care of Patient Medical Equipment				

M= Mandatory ARRT procedures
E= Elective ARRT Procedures
ME= Mandatory Elective ARRT Procedures determined by Trinity School.
All M, E, and ME must be completed during the program in order for the student to be eligible by ARRT standards to sit for the Registry Exam.

* = patient must be recumbent

Student Learning Outcome

Final Competency Testing

Student:_____ Date:_____

Instructor/Evaluator:_____Exam: _____

Point Scale:
- 0 = Unacceptable performance.
- 2 = Improvement needed.
- 3 = Meets expectations with minimal adjustments.
- 4 = Exceeds expectations, no assistance/adjustments needed.

Grading Scale:
- A = 100-94%
- B = 93-86%
- C = 85-80%
- F = below 80%

If a student doesn't achieve an 80%, review of material will be done with the CI. The student will be retested with the second score recorded as a repeat. i.e. 92 R.

		POSITION/PROJECTION				
		A	B	C	D	E
	PERFORMANCE EVALUATION:					
A.	Evaluate requisition					
B.	Physical facilities prepared					
C.	Patient Care					
D.	Equipment Operation					
E.	Positioning skills					
F.	Radiation protection utilized correctly					
	IMAGING EVALUATION:					
G.	Anatomical part(s)					
H.	Proper alignment					
I.	Radiographic techniques					
J.	Image identification					
K.	Radiation protection					
	TOTAL (44 points possible/projection)					
	FINAL SCORE					

Comments:

Instructor Signature:_____Date:_____

Student Signature:_____ Date:_____

Final Competency

Performance Evaluation Grading Guidelines

A. Evaluation of Requisition

1. Identified procedure(s) to be performed.
2. Identified the patient's name and age.
3. Identified patient location and mode of transportation.
4. Acknowledged any pathological conditions.
5. Acquired appropriate clinical patient history.

B. Physical Facilities Readiness

1. Verified that equipment is operational.
2. Provided a clean and orderly work area.
3. Obtained appropriate supplies for examination.

C. Patient Care

1. Verified the correct patient using two patient identifiers.
2. Introduced himself/herself and technologist to patient and briefly explained the procedure.
3. Requested last menstrual period (LMP) date for female patients within childbearing years.
4. Transported patient to appropriate imaging area.
5. Verified if patient is properly prepared for the examination.
6. identified, when appropriate, that there are no contraindications for performing exam.
7. Provided safe storage for patient's belongings.
8. Provided appropriate assistance to radiographic table based on patient's condition.
9. Maintained patient dignity and modesty using proper gowning and covering for the patient.
10. Talked to patient in a concerned, professional manner.
11. Applied standard precautions as established by the Centers for Disease Control.
12. Provided proper instructions for moving and breathing.
13. Checked patient's condition at regular intervals.
14. Provided a safe and secure environment for the patient.

D. Equipment Operation

1. Maneuvered the x-ray tube and bucky utilizing appropriate controls and locks.
2. Selected the proper IP/IR.
3. Used grids appropriately
4. Selected the appropriate SID.
5. Manipulated image receptor, as appropriate, for accurate imaging.
6. Measured the patient.
7. Used immobilization devices, as needed.
8. Referred to technique chart.
9. Selected exposure factors.
10. Did not exceed recommended safety guidelines for equipment.

E. Positioning skills

1. Positioned the patient.
2. Aligned the region of interest to the center of the IR.
3. Set the correct tube angle.
4. Set the correct SID.

F. Provide Evidence of Radiation Protection

1. Collimated to part.
2. Used gonadal shields, if appropriate.
3. Demonstrated use of lead apron, gloves and lead blockers, if appropriate.
4. Selected proper exposure factors.
5. Adjusted exposure factors for motion, pathology or patient size when appropriate.

IMAGE EVALUATION

G. Anatomical Part(s)

1. Part shown in proper position.
2. Adequate detail (no motion visible).
3. Identified anatomical structures.

H. Proper Alignment

1. IR centered.
2. Part centered.
3. Tube centered.
4. Patient aligned correctly.

I. Radiographic Techniques

1. Technical factors chosen to achieve optimal image quality.
2. Compensation of exposure factors for pathology.
3. Technique chosen reflects if a screen or grid is used, SID and OID.

J. Image Identification

1. Right and left markers properly displayed (not in area of interest). Annotation allowed only when markers are not able to be used.
2. Accessory markers visible, if required (minute, hour, directional).
3. Patient information and date identified.
4. Image displayed correctly on monitor.

K. Radiation Protection

1. Evidence of collimation.
2. Gonadal shields in place, if required.
3. No repeats.

GENERAL CLINICAL RULES AND LEARNING OUTCOMES

The following general rules, student learning outcomes, general clinical assignments, and course outcomes apply to ALL clinical courses.

Attendance:
Attendance to clinical assignments are mandatory.

Attendance to clinical laboratory class is mandatory. Demonstrations are performed once only. No make-up sessions will be held.

General Clinical Assignments:

1. The student is responsible for verification of their own Clinical Performance Chart as completed by the Clinical Instructor. The student is responsible to post their Clinical Performance Chart at the clinics.
2. All clinical examinations performed must be recorded by the student in their Student Exam Log Book.
3. All exams done to meet competency and proficiency must be entered in the Student's log in Trajecsys.
4. Information from the Exam slip must be entered in Trajecsys by the student as the first component needed to start the process for grading of an exam.
5. The Supervising Technologist is responsible for reviewing the images and completing the Technologist's component in Trajecsys in a timely manner. If a student is in a clinical rotation that is not at the hospital, it is the student's responsibility to make sure that the Technologist has finished their entry into Trajecys before bringing the exam slip to the Clinical Instructor for completion of the grading process.
6. Exam slips must be turned in for review and grading to the Clinical Instructor on a weekly basis. All exam slips must be turned in prior to the end of the semester in order to be recorded on that semester's grade.
7. Each week the student will work on completing their Semester Objective Assignment book.
8. The student will do other work as assigned by the clinical instructor.
9. The student will be responsible for insuring they have proper supervision before beginning an exam or repeating an image.

General Rules:

The following general rules apply to all exams done by the student at the clinical site.

1. Clinical Instructor will accomplish all clinical testing examinations and final testing exams.
2. A staff technologist will supervise the student for competency and proficiency Performance Evaluations under the guidelines of the Supervision Policy.
3. Routine views must be taken on all competency and proficiency exams attempted for performance Evaluations.
4. The student is to identify and evaluate all patients. Failure to identify the patient before an examination with two proper identifiers will result in automatic failure of that Performance Evaluation. Exception is made for OR cases.
5. An instructor or registered technologist must check all images taken by the student.
6. Any repeats must be directly supervised by a registered radiologic technologist with form initialed by technologist.
7. All isolation cases must be done under direct supervision.
8. No student may transport a patient until CPR certified.
9. Excessive failure will result in either clinical probation or dismissal in accordance with the School's Disciplinary Action and Dismissal Policy.
10. Students must demonstrate competency in **ALL** 37 mandatory ARRT procedures. (note: the student may simulate no more than 8 of these exams.)

11. Students must demonstrate competency in 15 of the 34 elective ARRT procedures. (note: elective procedures may be simulated if demonstration on a patient is not feasible.)

Course Outcome Assessment:

To successfully complete clinical courses the student must be able to independently complete radiography of patients of all age groups with consideration for differences in patient care levels and radiographic exposure techniques. This expected outcome will be assessed through achievement of the following PERFORMANCE INDICATORS:

1. Evaluate Communication Skills
   a. evaluation of requisition
   b. patient identification
   c. staff introduction
   d. communication with patient, family and other staff
2. Critical Thinking Skills
   a. follow established protocols
   b. adapt to changing patient condition and environment
   c. demonstrate positioning skills by using anatomical land marks
   d. demonstrate proper patient care skills
   e. select appropriate geometric factors
   f. respond promptly and correctly in a medical emergency
   g. follow sterile aseptic technique when situation requires it
   h. modify examinations when working on the pediatric, geriatric or trauma patient
3. Equipment
   a. select correct equipment and accessories for exam
   b. handle and move equipment safely
   c. prepare room/equipment for exam
4. Radiation Protection
   a. screen for pregnancy on women in reproductive years
   b. practice ALARA
   c. restrict beam to area of anatomical interest
   d. provide lead shielding for those in area of exposure
5. Image Analysis
   a. images of diagnostic quality
   b. all anatomy requested on image
   c. correct markers and annotation used
   d. evidence of radiation protection
6. Assist registered radiographers while in assigned rotation
7. Demonstrate the appropriate affective behaviors
8. Complete required number of clinical proficiencies
9. Demonstrate clinical competency in all required areas

Student Learning Outcome:

The grade determination for clinical course is based upon.

1. Clinical Testing/Performance Evaluations
   100 - 94% = A
   93 - 86% = B
   85 - 80% = C
   79 - 0% = F

Interventional Physician Assist Categories and Elective Fluoroscopic Exams

	Total Required	Competency	Proficiency
PHYSICIAN ASSIST PROCEDURES (sterile or semi-sterile procedures)	16	8	8

In order for the student to receive a grade and credit for Physician Assist procedures, the student must complete the Performance Evaluation found in Trajecsys. The student must set up the room, sterile tray, and be present for the entire exam.

Procedures the student may assist with:

- Angiography (CL or IR)
- Arthrogram
- Biopsies (Radiologist)
- Hysterosalpingogram
- IVC filter
- Joint injection
- Myelogram
- Percutaneous Nephrostomy Assist
- PICC line Assist
- Thoracentesis Assist
- Tube Placement

	Total Required	Competency	Proficiency
ELECTIVE FLUOROSCOPIC EXAMS	4	2	2

The student is required to complete a performance evaluation in four of the following ARRT Elective Fluoroscopic Exams.

- Arthrography
- Contrast Enema Assist
- Cystography/Cystourethography
- ERCP
- Hysterosalpingography
- Myelography

PREREQUISITES

Patient Care: Additional Medical Procedures & Aseptic Technique

Advanced Radiographic and Medical Imaging Modules and Clinical Rotations

Junior Year	**Time in modality**
Cath Lab/Interventional Radiology	1 week
Radiation Therapy	1 week
CT at AIC	1 week
Nuclear Medicine-PET	1 week
MRI at AIC	1 week
Senior Year	
DEXA	1 day
CT at AIC	2 weeks
CT at Hospital	1 week
MRI at Hospital	1 week
Cath Lab	1 week
Interventional Radiology	1 week
Radiation Therapy	1 week
Ultrasound	1 week
Mammography	1 day

Before any advanced imaging clinical rotations, students are required to:

1. Complete Introduction to Advanced Modalities during the first semester.
2. Complete all preparatory assignments needed PRIOR to a specific rotation in a modality.
3. Give Student Evaluation Form to supervising technologist the first day of clinical rotation in modality.The supervising technologist will return the completed form to the Clinical Instructor.
4. While in a modality, work on completing the Clinical Objective Checkoff list for that modality with the supervising technologist. At the end of the rotation, student will return the completed checkoff list to the Clinical Instructor.
5. Complete student paper or case study if one is assigned for the modality within two weeks of completing the rotation.

Advanced Radiographic and Medical Imaging Modality Modules and Clinical Rotations

STUDENT EVALUATION FORM

Radiologic Technology School

Evaluation form is to be given to supervising technologist who will use this form to evaluate student's activity and behaviors while in the clinical environments of CT, Cardiovascular Imaging, Interventional Radiology, Nuclear Medicine (to include PET), Ultrasound, Radiation Therapy, MRI, Mammography and DEXA.

It is the student's responsibility to give this form to a supervising technologist on first day of clinical rotation. It is the supervising technologist's responsibility to return the form to the Clinical Instructor.

Student's Name:_____ Assigned Rotation:_____

Evaluating Technologist:_____ Date:_____

Upon completion of the student's clinical rotation with you, please indicate your appraisal of this student in the following categories using the scale of:

SA = Strongly Agree ***A = Agree*** ***U = Undecided*** ***D = Disagree (performs below standards)***
NA = Not Applicable (task not observed or not measurable)

THE STUDENT:	*SA*	*A*	*U*	*D*	*NA*
1. Was neat, clean and followed dress code at all times					
2. Displayed professional conduct					
3. Worked effectively with other staff					
4. Asked questions, sought more information					
5. Initiated activities, participated in tasks					
6. Was consistently on time, dependable					
7. Was considerate and respectful to patients					
8. Listened and accepted direction willingly					
9 Demonstrated radiation protection measures					
Under your direction: 10. Attempted to manipulate equipment					
11. Participated in evaluation of images					
12. Performed required exams (appropriate to rotation)					

Comments:_____

_____

_____

_____

_____

Technologist's Signature:_____ Date:_____

Student's Signature:_____ Date:_____

Advanced Radiographic and Medical Imaging Modality Modules and Clinical Rotations

Radiologic Technology School

Clinical Rotation Module: CT **Year:** Junior **Clock Hours: 24**

PREREQUISITE: 380 - Introduction to Advanced Imaging

ASSIGNMENTS

1. Read Merrill's Ch. 25, Computed Tomography, pp. 205-224, 237-244. Complete handouts from Program Director by date indicated on handout.

   Due Date:_____

2. Give Student Evaluation form to supervising technologist on first day of rotation.

3. Complete Checklist of Clinical Objectives for CT during clinical rotation, then submit to Clinical Instructor within one week following rotation.

4. Write a two page report on a topic related to CT, citing at least one reference source, or complete an Interesting Case Study worksheet during your rotation and seek approval from the Program Director to present a case to your class in lieu of the two page report. Whether you write a report or present a case study, the assignment is due within two weeks of completing your clinical rotation.

   Due Date:_____

A penalty of 1% will be deducted from CT didactic course grade for each week of late submission of assignments.

Advanced Radiographic and Medical Imaging Modality Modules and Clinical Rotations

Radiologic Technology School

Clinical Rotation Module: CT-AIC and CT-H **Year:** Senior **Clock Hours: 72**

PREREQUISITE(S): Patient Care, Aseptic Technique, Pharmacology, Venipuncture

ASSIGNMENTS

1. Perform and document CT procedures to include head, sinus, abdomen, chest and urinary system. CT procedures are to be performed with assistance and supervision by a registered technologist. Documents procedures on the Clinical Experience Documentation form.

   Due Date:_____

2. Rotations will be scheduled at both Trinity Hospital and the Advanced Imaging Center. Students are required to complete aminimum of 24 hrs in the hospital environment to gain experience in acute,trauma, invasive, and inpatient CT procedures.

3. Give Student Evaluation form to supervising technologist on first day of rotation at Trinity Hospital and a second to supervising technologist at Advanced Imaging Center (two Evaluation Forms are required following CT rotation).

Advanced Radiographic and Medical Imaging Modality Modules and Clinical Rotations

Clinical Objectives Checklist

Clinical Rotation Module: CT- AIC **Year:** Junior **Clock Hours:** 24

OBJECTIVE	ACHIEVED/RT INITIALS
1. Identifies major components of CT Scanner	
2. Identifies patient related imaging supplies in room and states use	
3. Describes purpose and general use of pressure injector	
4. Identifies types of contrast agents in room and states use	
5. Identifies emergency drugs, where stored, indications for use	
6. Locates O2	
7. Locates suction equipment and accessories	
8. Locates assistance call button	
9. Locates Code Blue button	
10. Locates respiratory resuscitation equipment, ambu bag	
11. Assists in cleaning and preparing CT scanner room after each exam	

Advanced Radiographic and Medical Imaging Modality Modules and Clinical Rotations

Clinical Objectives Checklist

Clinical Rotation Module: CT- H **Year:** Senior **Clock Hours:** 24

OBJECTIVE	ACHIEVED/RT INITIALS
1. Identifies major components of CT Scanner	
2. Identifies patient related imaging supplies in room and states use	
3. Describes purpose and general use of pressure injector	
4. Identifies types of contrast agents in room and states use	
5. Identifies emergency drugs, where stored, indications for use	
6. Locates O2	
7. Locates suction equipment and accessories	
8. Locates assistance call button	
9. Locates Code Blue button	
10. Locates respiratory resuscitation equipment, ambu bag	
11. Assists in cleaning and preparing CT scanner room after each exam	
12. Optional: Under direct supervision, student will perform venipuncture	

Advanced Radiographic and Medical Imaging Modality Modules and Clinical Rotations

Clinical Experience Documentation Form – Computed Tomography

Clinical Rotation Module: CT **Year:** Senior

Document CT procedures performed with assistance and supervision. Procedures should include head, sinus, abdomen, chest and urinary system.

Candidate Name:_____ ARRT ID#_____

Category & Procedure Performed: Head / Sinus / Abdomen / Chest / Urinary	Date mm/dd/yy	Time	IV Start Yes/No	Facility Name	RT Initials
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

Advanced Radiographic and Medical Imaging Modality Modules and Clinical Rotations

Clinical Rotation Module: CVI **Year:** Junior **Clock Hours: 24**

PREREQUISITES: Patient Care, Intro to Advanced Imaging, Vital Signs, Basic EKG

ASSIGNMENT:

1. Read Merrill's Ch. 27, pp. 273-294. Complete handouts from Program Director by date indicated on handout.

2. Give Student Evaluation form to supervising technologist on first day of rotation.

3. Complete Checklist of Clinical Objectives for CVI during clinical rotation and submit to Clinical Instructor within one week following rotation.

4. Write a two page report on a topic related to CVI, citing at least one reference source or complete an Interesting Case Study worksheet during your rotation and seek approval from the Program Director to present a case to your class in lieu of the two page report. Whether you write a report or present a case study, the assignment is due within two weeks of completing your clinical rotation. Due Date:_____

A penalty of 1% will be deducted from Circulatory Cardiovascular didactic course grade for each week of late submission of assignments.

CVI Junior Rotation

Clinical Objectives

			RT OR RN INITIALS
1		Locates oxygen and supplies	
2		Locates suction equipment and supplies	
3		Locates assistance call button	
4		Locates Code Blue Button	
5		Locates respiratory resuscitation equipment	
6		Observes set up for procedures.	
7		Observes and complies with infection control policies for handling soiled supplies and linens.	
8		Locates where clean linen is stored.	
9		Assists in cleaning and preparing room after each procedure.	
10		The Registered Technologist(s), when supervising the student will:	
	a.	Explain the catheter selection for the procedure.	
	b.	Explain the purpose and use of the pressure injector.	
	c.	Demonstrate how to move around a room and maintain the sterile field that has been established.	
	d.	Review images with the student, explaining anatomy.	
11		The Registered Nurse when supervising the student will:	
	a.	Help and assist the student apply EKG patches.	
	b.	Help the student identify a normal EKG.	
	b.	Help and assist the student place oxygen on a patient.	
	c.	Help and assist the student place a blood pressure cuff on a patient.	
	d.	Review with the student normal values for Vitals.	
	e.	Identify to the student where emergency drugs are stored.	
	f.	Identify to the student the components of the crash cart.	

Advanced Radiographic and Medical Imaging Modality Modules and Clinical Rotations

Clinical Rotation Module: CVI **Year:** Senior **Clock Hours: 48**

ASSIGNMENT:

1. Give Student Evaluation form to supervising technologist on first day of rotation.
2. Complete CVI and Interventional Radiology Clinical Objectives during your senior year rotations and submit to the Clinical Instructor within one week following rotation.

A penalty of 1% will be deducted from Circulatory Cardiovascular didactic course grade for each week of late submission of assignments.

Cath Lab Rotation Senior Year

Clinical Objectives

			RT OR RN INITIALS
1	Identifies where the patient related imaging supplies are stored.		
2	Identifies where the contrast agents are stored.		
3	Observes and complies with infection control policies for handling soiled supplies by using the appropriate colored container.		
4	Observes and complies with infection control policies for handling soiled linens.		
5	Identifies and maintains the sterile field/area. (Aseptic Technique)		
6	Assists in cleaning and preparing room after each procedure.		
7	With the supervising Technologist(s) assistance the student will:		
	a.	Set up sterile trays	
	b.	Scrub in and assist the Technologist with procedures.	
	c.	Operate the controls for the Radiology equipment.	
	d.	Assist with the hemodynamic monitoring.	
8	The student will identify the following anatomy:		
	a.	Left Coronary artery	
	b.	Right Coronary artery	
	c.	Left ventricle	
	d.	Abdominal Aorta	
9	The Registered Nurse when supervising the student will:		
	a.	Help and assist the student apply EKG patches.	
	b.	Help the student identify a normal EKG.	
	b.	Help and assist the student place oxygen on a patient.	
	c.	Help and assist the student place a blood pressure cuff on a patient.	
	d.	Review with the student normal values for Vitals.	
	e.	Identify to the student where emergency drugs are stored.	
	f.	Identify to the student the components of the crash cart.	
	g.	Assist the student with venipuncture (optional for student)	

Interventional Radiology Senior Year

Clinical Objectives

			RT OR RN INITIALS
1	Identifies where the patient related imaging supplies are stored.		
2	Identifies where the contrast agents are stored.		
3	Observes and complies with infection control policies for handling soiled supplies by using the appropriate colored container.		
4	Observes and complies with infection control policies for handling soiled linens.		
5	Identifies and maintains the sterile field/area. (Aseptic Technique)		
6	Assists in cleaning and preparing room after each procedure.		
7	Locates oxygen and supplies		
8	Locates suction equipment and supplies		
9	Locates assistance call button		
10	Locates Code Blue Button		
11	Locates respiratory resuscitation equipment (crash cart)		
12	With the supervising Technologist(s) assistance the student will:		
	a.	Set up sterile trays	
	b.	Scrub in and assist the Technologist with procedures.	
	c.	Operate the controls for the Radiology equipment.	
	d.	Assist with the hemodynamic monitoring.	
	e	Identify anatomy	
13	The Registered Nurse when supervising the student will:		
	a.	Help and assist the student apply EKG patches.	
	b.	Help the student identify a normal EKG.	
	b.	Help and assist the student place oxygen on a patient.	
	c.	Help and assist the student place a blood pressure cuff on a patient.	
	d.	Review with the student normal values for Vitals.	
	e.	Identify to the student where emergency drugs are stored.	
	f.	Identify to the student the components of the crash cart.	
	g.	Assist the student with venipuncture (optional for student)	

Advanced Radiographic and Medical Imaging Modality Modules and Clinical Rotations

Clinical Rotation Module: NM/PET **Year:** Junior **Clock Hours: 24**

PREREQUISITE: Patient Care: Intro to Advanced Imaging

ASSIGNMENT:

1. Read Merrill's Ch. 29, Nuclear Medicine, pp. 387-410, 428-430. Complete handouts from Program Director by date indicate on handout.

2. Give Student Evaluation form to supervising technologist on first day of rotation.

3. Complete Checklist of Clinical Objectives for NM/PET during clinical rotation, then submit to Clinical Instructor within one week following rotation.

4. Write a two page report on a topic related to NM/PET, citing at least one reference source. or complete an Interesting Case Study worksheet during your rotation and seek approval from the Program Director to present a case to your class in lieu of the two page report. Whether you write a report or present a case study, the assignment is due within two weeks of completing your clinical rotation. Due Date:_____

Clinical Objectives

Clinical Rotation Module: NM **Year:** Junior **Clock Hours: 24**

OBJECTIVE	ACHIEVED/RT INITIALS
1. Identifies major components of NM Equipment	
2. Identifies patient related imaging supplies in room and states use	
3. Assists patient from the cart/gurney to NM imaging table	
4. Observes operation of nuclear medicine gamma camera	
5. Observes operation of SPECT imaging equipment	
6. Observes preparation of radiopharmaceuticals	
7. Observes disposal of drug syringes/needles following administration	
8. Locate O_2	
9. Locates suction and accessory equipment	
10. Locates emergency assistance call button	
11. Locates Code Blue button	
12. Locates respiratory resuscitation equipment, ambu bag	
13. Assists in cleaning and preparing room after each exam	
14. Locates, identifies and observes changing of gamma camera collimators	

Advanced Radiographic and Medical Imaging Modality Modules and Clinical Rotations

Clinical Objectives

Clinical Rotation Module: PET **Year:** Junior **Clock Hours: 24**

OBJECTIVE	ACHIEVED/RT INITIALS
1. Identifies major components of PET/CT Equipment	
2. Identifies patient related imaging supplies in room and states use	
3. Able to explain reason for glucose check prior to every PET	
4. Able to explain what FDG stands for and its half life	
5. Able to explain reason for PET quiet rooms	
6. Observes operation of PET Imaging gamma camera	
7. Observes operation of PET image reconstruction	
8. Able to explain process of ordering and receiving unit doses	
9. Able to explain preparation and calculation of patient radiopharmaceutical doses prior to injection	
10. Able to explain concept of “inhouse” decay for PET	
11. Observes disposal of drug syringes/needles following administration	
12. Locates, oxygen, suction and accessory equipment	
13. Locates emergency assistance call button	
14. Locates Code Blue button and able to explain procedure for calling Respiratory CODE at Advanced Imaging Center	
15. Locates respiratory resuscitation equipment, ambu bag	
16. Assists in cleaning and preparing room after each exam	
17. Observes minimum of three (3) PET procedures	
18. Demonstrates understanding of role of PET imagining in oncology	
19. Demonstrates understanding of role of PET imagining in cardiovascular and neurological disease	

Advanced Radiographic and Medical Imaging Modality Modules and Clinical Rotations

Clinical Rotation Module: MRI-AIC **Year:** Junior **Clock Hours: 24**

PREREQUISITE: Patient Care: Intro to Advanced Imaging

ASSIGNMENT:

1. Read Merrill's Ch 25, MRI, pp. 245-272. Complete handouts from Program Director by date indicated on handout.
   Due Date:_____
2. Complete MRI safety training module
3. Review and update student MRI screening sheet
4. Give Student Evaluation form to supervising technologist on first day of rotation.
5. Complete Checklist of Clinical Objectives for MRI during clinical rotation, then submit to Clinical Instructor within one week following rotation.

A penalty of 1% will be deducted from Magnetic Resonance Imaging didactic course grade for each week of late submission of assignments.

Clinical Objectives

Clinical Rotation Module: MRI-AIC **Year:** Junior **Clock Hours: 24**

OBJECTIVE	ACHIEVED/RT INITIALS
1. Identifies major components of MRI equipment	
2. Identifies patient related imaging supplies in room and states use	
3. Describes purpose and general use of pressure injector	
4. Identifies types of contrast agents in room and states use	
5. Identifies emergency drugs, where stored, indications for use	
6. Locates O_2	
7. Locates suction equipment and accessories	
8. Locates assistance call button	
9. Locates Code Blue button, able to explain procedure for calling a Respiratory CODE at Advanced Imaging Center	
10. Locates respiratory resuscitation equipment, ambu bag	
11. Assists in cleaning and preparing MRI room after each exam	
12. Demonstrates understanding of MRI safety, zoning, need for nonferrous accessory items	
13. Demonstrates understanding of RF coils, selection and maintenance, care	
14. Demonstrates understanding of basic MRI imaging protocols	
15. Completed MRI safety section of Hospital Mandatory Education	

Advanced Radiographic and Medical Imaging Modality Modules and Clinical Rotations

Clinical Objectives

Clinical Rotation Module: MRI-H **Year:** Senior **Clock Hours: 24**

OBJECTIVE	ACHIEVED/RT INITIALS
Prior to senior year rotation in MRI, the student will:	
1. Review MRI safety training module.	
2. Review and update student MRI screening sheet.	

OBJECTIVE	ACHIEVED/RT INITIALS
1. Identifies major components of MRI equipment	
2. Identifies patient related imaging supplies in room and states use	
3. Describes purpose and general use of pressure injector	
4. Identifies types of contrast agents in room and states use	
5. Identifies emergency drugs, where stored, indications for use	
6. Locates O_2	
7. Locates suction equipment and accessories	
8. Locates assistance call button	
9. Locates Code Blue button, able to explain procedure for calling a Respiratory CODE	
10. Locates respiratory resuscitation equipment, ambu bag	
11. Assists in cleaning and preparing MRI room after each exam	
12. Demonstrates understanding of MRI safety, zoning, need for nonferrous accessory items	
13. Demonstrates understanding of RF coils, selection and maintenance, care	
14. Demonstrates understanding of basic MRI imaging protocols	
15. Completed MRI safety section of Hospital Mandatory Education	

Advanced Radiographic and Medical Imaging Modality Modules and Clinical Rotations

Clinical Rotation Module: Radiation Therapy **Year:** Junior **Clock Hours: 24**

PREREQUISITE: Patient Care: Intro to Advanced Imaging

ASSIGNMENT:

1. Read Merrill's Ch. 30, Radiation Oncology, pp. 431-458. Complete handouts from Program Director by date on handouts.
   Due Date:_____
2. Give Student Evaluation form to supervising technologist on first day of rotation.
3. Complete Checklist of Clinical Objectives for RT during clinical rotation, then submit to Clinical Instructor within one week following rotation.
4. Write a two page report on a topic related to RT, citing at least one reference source, or complete an Interesting Case Study worksheet during your rotation and seek approval from the Program Director to present a case to your class in lieu of the two page report. Whether you write a report or present a case study, the assignment is due within two weeks of completing your clinical rotation. Due Date:_____

Clinical Objectives

Clinical Rotation Module: Radiation Therapy **Year:** Junior **Clock Hours: 24**

OBJECTIVE	ACHIEVED/RT INITIALS
1. Identifies major components of Radiation Therapy Equipment	
2. Assists and escorts patient to Radiation Therapy room	
3. Observes warm up procedures of therapy equipment	
4. Observes photon and electron treatment procedures, able to describe difference	
5. Observes CT Simulation	
6. Describes the importance of immobilization procedures	
7. Assists in cleaning and preparing room after each exam	
8. Observes an IMRT treatment and cone beam alignment	
9. Locates all emergency off switches in the treatment room	
10. Review basic plan with therapist	
11. Attends Radiation Therapy chart rounds (Wednesday mornings)	

Advanced Radiographic and Medical Imaging Modality Modules and Clinical Rotations

Clinical Rotation Module: Radiation Therapy **Year:** Senior **Clock Hours: 24**

Assignment:

1. Give Student Evaluation form to supervising technologist on first day of rotation.

2. Complete Checklist of Clinical Objectives for Radiation Therapy during clinical rotation, then submit to Clinical Instructor within one week following rotation.

Clinical Objectives

Clinical Rotation Module: Radiation Therapy **Year:** Senior **Clock Hours: 24**

OBJECTIVE	ACHIEVED/RT INITIALS
1. Locates all emergency shut off switches in the treatment room	
2. Observes warm up procedures for equipment	
3. Operates gantry and collimator, able to demonstrate table movement in all directions	
4. Demonstrates knowledge of table set up for lung, breast and pelvis treatments	
5. Locates and demonstrates knowledge of and use of lasers	
6. Demonstrates knowledge of wedge	
7. Demonstrates knowledge of photon and electron treatments	
8. Observes CT simulation, and understands immobilization	
9. Demonstrates understanding of purpose and use of MLC and electron blocks	
10. Able to explain use of bolus for therapy treatments	
11. Reviews a patient radiation therapy plan with dosimetrist	
12. Observes an IMRT treatment and cone beam alignment	
13. OPTIONAL: Attend Radiation Therapy Chart Rounds (Wednesday mornings) for one hour CTO. Must submit CTO slip to PD.	

Advanced Radiographic and Medical Imaging Modality Modules and Clinical Rotations

Clinical Rotation Module: Ultrasound **Year:** Senior **Clock Hours: 24**

PREREQUISITE: Patient Care: Intro to Advanced Imaging; Ultrasound Didactic Course

ASSIGNMENT:

1. Read Merrill's, Ch. 28, Ultrasound, pp. 357-386. Complete handouts as assigned by Program Director.
   Due Date:_____
2. Give Student Evaluation form to supervising technologist on first day of rotation.
3. Complete Checklist of Clinical Objectives for US during clinical rotation, then submit to Clinical Instructor within one week following rotation.

A penalty of 1% will be deducted from Ultrasound course grade for each week of late submission of assignments.

Advanced Radiographic and Medical Imaging Modality Modules and Clinical Rotations

Clinical Objectives

Clinical Rotation Module: Ultrasound **Year:** Senior **Clock Hours: 24**

OBJECTIVE		ACHIEVED/RT INITIALS
1. Identifies major components of Ultrasound Equipment		
2. Identifies patient related imaging supplies in room and states use		
3. Assists patient from the cart/gurney to imaging table		
4. Demonstrates understanding of selection of transducer appropriate for procedure		
5. Demonstrates knowledge of operation of basic system functions on ultrasound equipment a) depth control b) focal zone c) TGC d) overall gain		
6. Observes handling and disinfection of endocavity transducer probes		
7. Locates O_2		
8. Locates suction and accessory equipment		
9. Locates emergency assistance call button		
10. Locates Code Blue button		
11. Locates respiratory resuscitation equipment, ambu bag		
12. Assists in cleaning and preparing room after each exam		
13. Identifies the following anatomical structures under direct supervision		
a) Abdomen	**Aorta/IV**	
	Spleen	
	Pancreas	
	Liver Lobes	
	Hepatic veins	
	Gallbladder	
	Portal veins	
	Kidneys	
b) Pelvis	**Bladder**	
	Uterus	
	Ovaries	
c) Obstetric	**Fetal position**	
	Amniotic fluid	
	Femur	
	Heart	
	Placenta	
	Head	
	Abdomen	

Advanced Radiographic and Medical Imaging Modality Modules and Clinical Rotations

Clinical Rotation Module: Mammography **Year:** Senior **Clock Hours: 8**

PREREQUISITE: Mammography Didactic Course

ASSIGNMENT:

1. Give Student Evaluation form to supervising technologist on first day of rotation.

2. Complete Checklist of Clinical Objectives for Mammography during clinical rotation, then submit to Clinical Instructor within one week following rotation.

Clinical Objectives

Clinical Rotation Module: Mammography **Year:** Senior **Clock Hours: 8**

OBJECTIVE	ACHIEVED/RT INITIALS
1. Identifies major components of Mammography equipment	
2. Identifies patient related imaging supplies in room and states use	
3. Observes equipment demonstration	
4. Views provided positioning DVD (ASRT)	
5. Observes radiologist interpreting mammograms (4 hours)	
6. Observes performance of mammography (with patient consent)	

Advanced Radiographic and Medical Imaging Modality Modules and Clinical Rotations

Clinical Rotation Module: DEXA **Year:** Senior **Clock Hours: 8**

ASSIGNMENT:

1. Read Merrill's, Ch. 19, pp. 465-502, Complete handouts as assigned by the Program Director.
2. Give Student Evaluation form to supervising technologist on first day of rotation.
3. Complete Checklist of Clinical Objectives for DEXA during clinical rotation, then submit to Clinical Instructor within one week following rotation.
4. Observe a minimum of three (3) DEXA exams during rotation and document exams on Student Exam Log Booklet.
   Due Date:_____

Clinical Objectives

Clinical Rotation Module: DEXA **Year:** Senior **Clock Hours: 8**

OBJECTIVE	ACHIEVED	RT INITIALS
1. Identifies major components of DEXA equipment		
2. Identifies patient related imaging supplies in room and states use		
3. Observes equipment demonstration		
4. Observes patient interview and documentation of patient history		
5. Demonstrates understanding of how hormone therapy, vitamins and calcium use		
can affect DEXA scan results		
6. Identifies medical imaging exams that should be avoided prior to DEXA		
7. Demonstrates understanding of the importance of accurate positioning for baseline		
and serial DEXA scans		
8. Identifies the limitations of DEXA scanning		
9. Observes the computer analysis of a minimum three (3) DEXA scans		
10. Observes performance of a minimum three (3) DEXA scans		

TRINITY HEALTH

Appendix B
JRCERT Standards

Standards for an Accredited Educational Program in Radiography

EFFECTIVE JANUARY 1, 2014

Adopted by:

The Joint Review Committee on Education in Radiologic Technology - October 2013

Joint Review Committee on Education in Radiologic Technology
20 N. Wacker Drive, Suite 2850
Chicago, IL 60606-3182
312.704.5300 ● (Fax) 312.704.5304
www.jrcert.org

The Joint Review Committee on Education in Radiologic Technology (JRCERT) is dedicated to excellence in education and to the quality and safety of patient care through the accreditation of educational programs in the radiologic sciences.

The JRCERT is the only agency recognized by the United States Department of Education (USDE) and the Council on Higher Education Accreditation (CHEA) for the accreditation of traditional and distance delivery educational programs in radiography, radiation therapy, magnetic resonance, and medical dosimetry. The JRCERT awards accreditation to programs demonstrating substantial compliance with these **STANDARDS**.

Introductory Statement

The Joint Review Committee on Education in Radiologic Technology (JRCERT) **Standards for an Accredited Educational Program in Radiography** are designed to promote academic excellence, patient safety, and quality healthcare. The **STANDARDS** require a program to articulate its purposes; to demonstrate that it has adequate human, physical, and financial resources effectively organized for the accomplishment of its purposes; to document its effectiveness in accomplishing these purposes; and to provide assurance that it can continue to meet accreditation standards.

The JRCERT accreditation process offers a means of providing assurance to the public that a program meets specific quality standards. The process helps to maintain program quality and stimulates program improvement through program assessment.

There are six (6) standards. Each standard is titled and includes a narrative statement supported by specific objectives. Each objective, in turn, includes the following clarifying elements:

- **Explanation** - provides clarification on the intent and key details of the objective.

- **Required Program Response** - requires the program to provide a brief narrative and/or documentation that demonstrates compliance with the objective.

- **Possible Site Visitor Evaluation Methods** - identifies additional materials that may be examined and personnel who may be interviewed by the site visitors at the time of the on-site evaluation to help determine if the program has met the particular objective. Review of additional materials and/or interviews with listed personnel is at the discretion of the site visit team.

Following each standard, the program must provide a **Summary** that includes the following:

- Major strengths related to the standard
- Major concerns related to the standard
- The program's plan for addressing each concern identified
- Describe any progress already achieved in addressing each concern
- Describe any constraints in implementing improvements

The submitted narrative response and/or documentation, together with the results of the on-site evaluation conducted by the site visit team, will be used by the JRCERT Board of Directors in determining the program's compliance with the STANDARDS.

Standards for an Accredited Educational Program in Radiography

Table of Contents

Standard One
Integrity

Standard One: **The program demonstrates integrity in the following:**

- **Representations to communities of interest and the public,**
- **Pursuit of fair and equitable academic practices, and**
- **Treatment of, and respect for, students, faculty, and staff**.

Objectives:

In support of **Standard One**, the program:

1.1 Adheres to high ethical standards in relation to students, faculty, and staff.

1.2 Provides equitable learning opportunities for all students.

1.3 Provides timely, appropriate, and educationally valid clinical experiences for each admitted student.

1.4 Limits required clinical assignments for students to not more than 10 hours per day and the total didactic and clinical involvement to not more than 40 hours per week.

1.5 Assures the security and confidentiality of student records, instructional materials, and other appropriate program materials.

1.6 Has a grievance procedure that is readily accessible, fair, and equitably applied.

1.7 Assures that students are made aware of the JRCERT **Standards for an Accredited Educational Program in Radiography** and the avenue to pursue allegations of non-compliance with the **STANDARDS**.

1.8 Has publications that accurately reflect the program's policies, procedures, and offerings.

1.9 Makes available to students, faculty, and the general public accurate information about admission policies, tuition and fees, refund policies, academic calendars, clinical obligations, grading system, graduation requirements, and the criteria for transfer credit.

1.10 Makes the program's mission statement, goals, and student learning outcomes readily available to students, faculty, administrators, and the general public.

1.11 Documents that the program engages the communities of interest for the purpose of continuous program improvement.

1.12 Has student recruitment and admission practices that are non-discriminatory with respect to any legally protected status such as race, color, religion, gender, age, disability, national origin, and any other protected class.

1.13 Has student recruitment and admission practices that are consistent with published policies of the sponsoring institution and the program.

1.14 Has program faculty recruitment and employment practices that are non-discriminatory with respect to any legally protected status such as race, color, religion, gender, age, disability, national origin, and any other protected class.

1.15 Has procedures for maintaining the integrity of distance education courses.

1.1 Adheres to high ethical standards in relation to students, faculty, and staff.

Explanation:
High ethical standards help assure that the rights of students, faculty, and staff are protected. Policies and procedures must be fair, equitably applied, and promote professionalism.

Required Program Response:

- Describe the procedure for making related policies and procedures known.
- Provide copies of policies and procedures that assure equitable treatment of students, faculty, and staff.

Possible Site Visitor Evaluation Methods:

- Review of student handbook
- Review of employee/faculty handbook
- Review of course catalog
- Review of student records
- Interviews with faculty
- Interviews with students
- Interviews with staff

1.2 Provides equitable learning opportunities for all students.

Explanation:
The provision of equitable learning activities promotes a fair and impartial education and reduces institutional and/or program liability. The program must provide equitable learning opportunities for all students regarding learning activities and clinical assignments. For example, if an opportunity exists for students to observe or perform breast imaging, then all students must be provided the same opportunity. If evening and/or weekend rotations are utilized, this opportunity must be equitably provided for all students.

Required Program Response:
Describe how the program assures equitable learning opportunities for all students.

Possible Site Visitor Evaluation Methods:

- Review of published program materials
- Review of master plan of education
- Review of course objectives
- Review of student clinical assignment schedules
- Interviews with faculty
- Interviews with clinical instructors
- Interviews with clinical staff
- Interviews with students

1.3 Provides timely, appropriate, and educationally valid clinical experiences for each admitted student.

Explanation:
Programs must have a process in place to provide timely, appropriate, and educationally valid clinical experiences to all students admitted to the program. Students must have sufficient access to clinical settings that provide a wide range of procedures for competency achievement including mobile, surgical, and trauma examinations. Clinical settings may include hospitals, clinics, specialty/imaging centers, orthopedic centers, and other facilities. With the exception of observation site assignments, students must be provided the opportunity to complete required program competencies during clinical assignments. Clinical placement must be non-discriminatory in nature and solely determined by the program.

A meaningful clinical education plan assures that activities are educationally valid and prevents the use of students as replacements for employees. The maximum number of students assigned to a clinical setting must be supported by sufficient human and physical resources. The number of students assigned to the clinical setting must not exceed the number of clinical staff assigned to the radiography department. The student to radiography clinical staff ratio must be 1:1. However, it is acceptable that more than one student may be temporarily assigned to one technologist during uncommonly performed procedures.

Students assigned to advanced imaging modalities, such as computed tomography, magnetic resonance, angiography, and sonography, are not included in the calculation of the authorized clinical capacity (unless the clinical setting is recognized exclusively for advanced imaging modality rotations). Once the students have completed the advanced imaging assignments, the program must assure that there are sufficient clinical staff to support the students upon reassignment to the radiography department.

The utilization of clinical assignments such as file room, reception area, and patient transportation should be limited.

Additionally, traditional programs that require students to participate in clinical education during evenings and/or weekends must assure that:

- students' clinical clock hours spent in evening and/or weekend assignments must not exceed 25% of the total clinical clock hours.
- program total capacity is not increased through the use of evening and/or weekend assignments.

The JRCERT defines the operational hours of traditional programs as Monday - Friday, 5:00 a.m. - 7:00 p.m.

Programs may permit students to make up clinical time during term or scheduled breaks; however, they may not be assigned to clinical settings on holidays that are observed by the sponsoring institution. Program faculty need not be physically present; however, students must be able to contact program faculty during makeup assignments. Also, the program must assure that its liability insurance covers students during these makeup assignments.

Required Program Response:

- Describe the process for student clinical placement.
- Provide current student assignment schedules in relation to student enrollment.
- Describe how the program assures a 1:1 student to radiography clinical staff ratio at all clinical settings.
- Describe how the program assures that all students have access to a sufficient variety and volume of procedures to achieve program competencies.
- Submit evening and/or weekend rotation(s) calculations, if applicable.

Possible Site Visitor Evaluation Methods:

- Review of published program materials
- Review listing of enrolled students in relation to clinical assignments, including evening and/or weekend, if applicable
- Review of clinical placement process
- Review of student clinical records
- Interviews with faculty
- Interviews with clinical instructors
- Interviews with students

1.4 Limits required clinical assignments for students to not more than 10 hours per day and the total didactic and clinical involvement to not more than 40 hours per week.

Explanation:
This limitation helps assure that students are treated ethically. For the safety of students and patients, not more than ten (10) clinical hours shall be scheduled in any one day. Scheduled didactic and clinical hours combined cannot exceed forty (40) hours per week. Hours exceeding these limitations must be voluntary on the student's part.

Required Program Response:

- Describe the process for assuring that time limitations are not exceeded.
- Provide documentation that required student clinical assignments do not exceed ten (10) hours in any one day and the total didactic and clinical involvement does not exceed forty (40) hours per week.

Possible Site Visitor Evaluation Methods:

- Review of master plan of education
- Review of published program materials
- Review of student schedules
- Interviews with faculty
- Interviews with clinical instructor(s)
- Interviews with clinical staff
- Interviews with students

1.5 Assures the security and confidentiality of student records, instructional materials, and other appropriate program materials.

Explanation:
Appropriately maintaining the security and confidentiality of student records and other program materials protects the student's right to privacy. Student records must be maintained in accordance with the Family Education Rights and Privacy Act (Buckley Amendment). If radiation monitoring reports contain students' dates of birth and/or social security numbers, this information must be maintained in a secure and confidential manner.

Required Program Response:
Describe how the program maintains the security and confidentiality of student records and other program materials.

Possible Site Visitor Evaluation Methods:

- Review of institution's/program's published policies/procedures
- Review of student academic and clinical records
- Tour of program offices
- Tour of clinical setting(s)
- Interviews with administrative personnel
- Interviews with faculty
- Interviews with clinical instructor(s)
- Interviews with clinical staff
- Interviews with students

1.6 Has a grievance procedure that is readily accessible, fair, and equitably applied.

Explanation:
A grievance is defined as a claim by a student that there has been a violation, misinterpretation, or inequitable application of any existing policy, procedure, or regulation. The program must have procedures to provide students an avenue to pursue grievances. The procedure must outline the steps for formal resolution of any grievance. The final step in the process must not include any individual(s) directly associated with the program (e.g., program director, clinical coordinator, clinical instructors, diagnostic imaging department director). The procedure must assure timely resolution. The program must maintain a record of all formal grievances and their resolution. Records must be retained in accordance with the institution's/program's retention policies/procedures. The records must include information on how the grievance was resolved and assurance that there are no trends that could negatively affect the quality of the educational program.

Additionally, the program must have a procedure to address any complaints apart from those that require invoking the grievance procedure. The program must determine if a pattern of complaint exists that could negatively affect the quality of the educational program (e.g., cleanliness of the classroom).

Required Program Response:
Describe the nature of any formal grievance(s) that would jeopardize the program's ability to meet its mission.
Describe the nature of any complaint(s) that would jeopardize the program's ability to meet its mission.
Provide a copy of the grievance procedure.
Provide a copy of any formal grievance(s) resolution.

Possible Site Visitor Evaluation Methods:
- Review of institutional catalog
- Review of student handbook
- Review of formal grievance(s) record(s), if applicable
- Review of complaint(s) record(s), if applicable
- Interviews with faculty
- Interviews with students

1.7 Assures that students are made aware of the JRCERT Standards for an Accredited Educational Program in Radiography and the avenue to pursue allegations of non-compliance with the STANDARDS.

Explanation:
The program must assure students are cognizant of the **STANDARDS** and must provide contact information for the JRCERT.

Students have the right to submit allegations against a JRCERT-accredited program if there is reason to believe that the program has acted contrary to JRCERT accreditation standards or that conditions at the program appear to jeopardize the quality of instruction or the general welfare of its students.

Contact of the JRCERT should not be a step in the formal institutional/program grievance procedure. The individual must first attempt to resolve the complaint directly with institution/program officials by following the grievance procedures provided by the institution/program. If the individual is unable to resolve the complaint with institution/program officials or believes that the concerns have not been properly addressed, he or she may submit allegations of non-compliance directly to the JRCERT.

Required Program Response:
- Describe the procedure for making students aware of the **STANDARDS**.
- Describe how students are provided contact information for the JRCERT.

Possible Site Visitor Evaluation Methods:
- Review of program publications
- Interviews with faculty
- Interviews with students

1.8 Has publications that accurately reflect the program's policies, procedures, and offerings.

Explanation:
Maintaining published information regarding the program's current policies, procedures, and offerings provides interested parties with an accurate overview of program requirements and expectations.

Required Program Response:
Provide program publications that reflect program policies, procedures and offerings.

Possible Site Visitor Evaluation Methods:

- Review of published program materials
- Review of student handbook
- Interviews with faculty
- Interviews with students

1.9 Makes available to students, faculty, and the general public accurate information about admission policies, tuition and fees, refund policies, academic calendars, clinical obligations, grading system, graduation requirements, and the criteria for transfer credit.

Explanation:
The institutional and/or program policies must be published and made readily available to students, faculty, and the general public on the institution's/program's Web site to assure transparency and accountability of the educational program. For example, requiring the general public to contact the institution/program to request program information is not adequate. Policy changes must be made known to students, faculty, and the general public in timely fashion. It is recommended that revision dates be identified on program publications.

The institution and/or program must establish and publicly disclose the criteria used when determining the transfer of credit earned from other institutions and/or programs. Also, programs must publicly disclose a list of institutions with which the program has established an articulation agreement.

The program's academic calendar must be published and, at a minimum, identify specific start and end dates for each term, holidays recognized by the sponsoring institution, and breaks.

Student clinical obligations (e.g., drug screening, background checks, and associated fees) must be clearly identified in appropriate program publications. Additionally, if evening and/or weekend clinical assignments are required or if students must travel to geographically-dispersed clinical settings, this information must also be included.

Required Program Response:
- Describe how institutional and/or program policies are made known to students, faculty, and the general public.
- Provide publications that include these policies.

Possible Site Visitor Evaluation Methods:
- Review of institutional materials
- Review of published program materials
- Review of institutional and/or program Web site
- Interviews with faculty
- Interviews with Admissions personnel
- Interviews with Registrar
- Interviews with students

1.10 Makes the program's mission statement, goals, and student learning outcomes readily available to students, faculty, administrators, and the general public.

Explanation:
Program accountability is enhanced by making its mission statement, goals, and student learning outcomes available to the program's communities of interest on the institution's/program's Web site to assure transparency and of the educational program. Requiring the general public to contact the institution/program to request program information is not adequate.

Example:

Mission:
The mission of the radiography program is to prepare competent, entry-level radiographers able to function within the healthcare community.

Goal: Students will be clinically competent.
Student Learning Outcomes: Students will apply positioning skills.
Students will select technical factors.
Students will utilize radiation protection.

Goal: Students will demonstrate communication skills.
Student Learning Outcomes: Students will demonstrate written communication skills.
Students will demonstrate oral communication skills.

Goal: Students will develop critical thinking skills.
Student Learning Outcomes: Students will adapt standard procedures for non-routine patients.
Students will critique images to determine diagnostic quality.

Goal: Students will model professionalism.
Student Learning Outcomes: Students will demonstrate work ethics.
Students will summarize the value of life-long learning.

Required Program Response:
- Describe how the program makes its mission statement, goals, and student learning outcomes available to students, faculty, administrators, and the general public.
- Provide copies of publications that contain the program's mission statement, goals, and student learning outcomes.

Possible Site Visitor Evaluation Methods:
- Review of published program materials
- Review of institutional and/or program Web site
- Interviews with administrative personnel
- Interviews with faculty
- Interviews with students

1.11 Documents that the program engages the communities of interest for the purpose of continuous program improvement.

Explanation:
Communities of interest are defined as institutions, organizations, groups, and/or individuals interested in educational activities in radiography. Obtaining formal feedback on program operations, student progress, employer needs, etc. from communities of interest allows the program to determine if it is meeting expectations and assures continuous program improvement. The program can use a variety of tools to obtain this feedback.

Required Program Response:

- Describe the process of obtaining feedback.
- Provide representative samples of appropriate meeting minutes, evaluations (e.g., course and faculty), and surveys (e.g., graduate and employer).

Possible Site Visitor Evaluation Methods:

- Review of meeting minutes
- Review of evaluations
- Review of surveys
- Interviews with members of various communities of interest

1.12 Has student recruitment and admission practices that are non-discriminatory with respect to any legally protected status such as race, color, religion, gender, age, disability, national origin, and any other protected class.

Explanation:
Non-discriminatory practices assure applicants have equal opportunity for admission. Statistical information such as race, color, religion, gender, age, disability, national origin, and any other protected class may be collected; however, this information must be voluntarily provided by the student. Use of this information in the student selection process is discriminatory.

Required Program Response:
- Describe how admission practices are non-discriminatory.
- Provide institutional and/or program admission policies.

Possible Site Visitor Evaluation Methods:
- Review of published program materials
- Review of student records
- Interviews with faculty
- Interviews with Admissions personnel
- Interviews with students

1.13 Has student recruitment and admission practices that are consistent with published policies of the sponsoring institution and the program.

Explanation:
Defined admission practices facilitate objective student selection. In considering applicants for admission, the program must follow published policies and procedures.

Required Program Response:
- Describe the implementation of institutional and program admission policies.
- Provide institutional and program admission policies.

Possible Site Visitor Evaluation Methods:
- Review of published program materials
- Interviews with faculty
- Interviews with Admissions personnel
- Interviews with students

1.14 Has program faculty recruitment and employment practices that are non-discriminatory with respect to any legally protected status such as race, color, religion, gender, age, disability, national origin, and any other protected class.

Explanation:

Recruitment and employment practices that are non-discriminatory assure fairness and integrity. Equal opportunity for employment must be offered to each applicant. Employment practices must be applied equitably to all faculty.

Required Program Response:

- Describe how non-discriminatory employment practices are assured.
- Provide copies of employment policies and procedures that assure non-discriminatory practices.

Possible Site Visitor Evaluation Methods:

- Review of employee/faculty handbook
- Review of employee/faculty application form
- Review of institutional catalog
- Interviews with faculty

1.15 Has procedures for maintaining the integrity of distance education courses.

Explanation:
Programs that offer distance education must have processes in place that assure that the students who register in the distance education courses are the same students that participate in, complete, and receive the credit. Programs must verify the identity of students by using methods such as, but not limited to: secure log-ins, pass codes, and/or proctored exams. These processes must protect the student's privacy. Student costs associated with distance education must be disclosed.

Required Program Response:
- Describe the process for assuring the integrity of distance education courses.
- Provide published program materials that outline procedures for maintaining integrity of distance education courses.
- Provide published program materials that identify associated fees for students enrolled in distance education courses.

Possible Site Visitor Evaluation Methods:
- Review of published program materials
- Review the process of student identification
- Review of student records
- Interviews with faculty
- Interviews with students

Summary for Standard One

1. List the major strengths of **Standard One**, in order of importance.

2. List the major concerns of **Standard One**, in order of importance.

3. Provide the program's plan for addressing each concern identified.

4. Describe any progress already achieved in addressing each concern.

5. Describe any constraints in implementing improvements.

Standard Two:
Resources

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

Objectives:

In support of **Standard Two**, the program:

Administrative Structure

2.1 Has an appropriate organizational structure and sufficient administrative support to achieve the program's mission.

2.2 Provides an adequate number of faculty to meet all educational, program, administrative, and accreditation requirements.

2.3 Provides faculty with opportunities for continued professional development.

2.4 Provides clerical support services, as needed, to meet all educational, program, and administrative requirements.

Learning Resources/Services

2.5 Assures JRCERT recognition of all clinical settings.

2.6 Provides classrooms, laboratories, and administrative and faculty offices to facilitate the achievement of the program's mission.

2.7 Reviews and maintains program learning resources to assure the achievement of student learning.

2.8 Provides access to student services in support of student learning.

Fiscal Support

2.9 Has sufficient ongoing financial resources to support the program's mission.

2.10 For those institutions and programs for which the JRCERT serves as a gatekeeper for Title IV financial aid, maintains compliance with United States Department of Education (USDE) policies and procedures.

2.1 Has an appropriate organizational structure and sufficient administrative support to achieve the program's mission.

Explanation:
The program's relative position in the organizational structure helps facilitate appropriate resources and assures focus on the program. To operate effectively, the program must have sufficient institutional administrative support. Both organizational structure and administrative support enable the program to meet its mission and promote student learning.

Required Program Response:

- Describe the program's relationship to the organizational and administrative structures of the sponsoring institution and how this supports the program's mission.
- Provide institutional and program organizational charts.

Possible Site Visitor Evaluation Methods:

- Review of organizational charts of institution and program
- Review of meeting minutes
- Review of published program materials
- Review of master plan of education
- Interviews with faculty and institutional officials
- Interviews with clinical instructor(s)

2.2 Provides an adequate number of faculty to meet all educational, program, administrative, and accreditation requirements.

Explanation:
An adequate number of faculty promotes sound educational practices. A full-time program director is required. Faculty teaching loads and release time must be consistent with those of comparable faculty in other health science (allied health) programs in the same institution.

Additionally, a full-time equivalent clinical coordinator is required if the program has more than five (5) active clinical settings or more than thirty (30) students enrolled in the clinical component. The clinical coordinator position may be shared by no more than four (4) appointees. If a clinical coordinator is required, the program director may not be identified as the clinical coordinator. The clinical coordinator may not be identified as the program director.

The program director and clinical coordinator may perform clinical instruction; however, they may not be identified as clinical instructors.

A minimum of one clinical instructor must be designated at each recognized clinical setting. The same clinical instructor may be identified at more than one site as long as a ratio of one full-time equivalent clinical instructor for every ten (10) students is maintained.

Required Program Response:
- Provide, if available, institutional policies in relation to teaching loads and release time.
- Describe faculty teaching loads and release time in relation to a comparable health science (allied health) program within the institution.
- Describe the adequacy of the number of faculty and clinical staff to meet identified accreditation requirements and program needs.

Possible Site Visitor Evaluation Methods:
- Review institutional policies in relation to teaching loads and release time
- Review of master plan of education
- Review of position descriptions
- Review of clinical settings
- Interviews with faculty
- Interviews with clinical instructor(s)
- Interviews with students

2.3 Provides faculty with opportunities for continued professional development.

Explanation:
Continued professional development results in more knowledgeable, competent, and proficient faculty. Opportunities that enhance and advance educational, technical, and professional knowledge must be available to program faculty.

Required Program Response:
Describe how continued professional development opportunities are made available to faculty.

Possible Site Visitor Evaluation Methods:

- Review of institutional and program policies
- Review of program budget or other fiscal appropriations
- Review of evidence of faculty participation in professional development activities
- Interviews with administrative personnel
- Interviews with faculty

2.4 Provides clerical support services, as needed, to meet all educational, program, and administrative requirements.

Explanation:
Clerical support services necessary to assist in meeting educational, program, and administrative requirements of the program must be provided as appropriate.

Required Program Response:
Describe the availability and use of clerical support services.

Possible Site Visitor Evaluation Methods:

- Review of program's staffing plan
- Interviews with administrative personnel
- Interviews with faculty
- Interviews with students

2.5 Assures JRCERT recognition of all clinical settings.

Explanation:
JRCERT recognition helps assure an appropriate learning environment for student clinical education. All clinical settings must be recognized by the JRCERT. Recognition of a clinical setting must be obtained prior to student placement. A minimum of one (1) clinical instructor must be identified for each recognized clinical setting.

An observation site is used for student observation of the operation of equipment and/or procedures. If the program uses observation sites, these sites do not require recognition by the JRCERT. These sites provide opportunities for observation of clinical procedures that may not be available at recognized clinical settings. Students may not assist in, or perform, any aspects of patient care during observational assignments.

Facilities where students are participating in service learning projects or community-based learning opportunities do not require recognition.

Required Program Response:
- Assure all clinical settings are recognized by the JRCERT.
- Describe how observation sites, if used, enhance student clinical education.

Possible Site Visitor Evaluation Methods:
- Review of JRCERT database
- Review of clinical records
- Interviews with faculty
- Interviews with clinical instructors
- Interviews with clinical staff
- Interviews with students

2.6 Provides classrooms, laboratories, and administrative and faculty offices to facilitate the achievement of the program's mission.

Explanation:
Learning environments are defined as places, surroundings, or circumstances where knowledge, understanding, or skills are studied or observed such as classrooms and laboratories. Learning environments must be consistent with those of comparable health science programs in the same institution. Provision of appropriate learning environments facilitates achievement of the program's mission. Although a dedicated classroom and/or laboratory are not required, scheduled accessibility to facilities conducive to student learning must be assured. Faculty office space should be conducive to planning and scholarly activities. Space should be made available for private student advisement.

Required Program Response:
Describe how classrooms, laboratories, and administrative and faculty offices facilitate the achievement of the program's mission.

Possible Site Visitor Evaluation Methods:

- Tour of the classroom, laboratories, and administrative and faculty offices
- Interviews with faculty
- Interviews with students

2.7 Reviews and maintains program learning resources to assure the achievement of student learning.

Explanation:
The review and maintenance of learning resources promotes student knowledge of current and developing imaging technologies. The program must provide learning resources to support and enhance the educational program. These resources must include:

- a print or electronic library with a variety of materials published within the last five years,
- computer access, and
- additional learning aids (e.g., educational software, classroom/laboratory accessory devices, etc.).

The JRCERT does not endorse any specific learning resources.

Required Program Response:

- Describe the available learning resources.
- Describe the procedure for review and maintenance of learning resources.

Possible Site Visitor Evaluation Methods:

- Tour of learning facilities
- Review of learning resources
- Review of surveys
- Review of meeting minutes
- Interviews with faculty
- Interviews with students

2.8 Provides access to student services in support of student learning.

Explanation:
The provision of appropriate student services promotes student achievement. At a minimum, the program must provide access to information for:

- personal counseling,
- requesting accommodations for disabilities as defined by applicable federal (Americans with Disabilities Act) and state laws, and
- financial aid.

Additional student services may be provided at the discretion of the program. These services should be sufficient to assure student learning.

All services provided must be made known to students and the general public.

Required Program Response:

- Describe the students' access to student services.
- Provide published program materials that outline accessibility to student services.

Possible Site Visitor Evaluation Methods:

- Review of published program materials
- Interviews with faculty
- Interviews with students

2.9 Has sufficient ongoing financial resources to support the program's mission.

Explanation:
Adequate, ongoing funding is necessary to accomplish the program's mission and to support student learning. The sponsoring institution must demonstrate ongoing financial commitment to the program and its students by providing adequate human and physical resources.

Required Program Response:
- Describe the adequacy of financial resources.
- Provide copies of the program's budget and/or expenditure records.

Possible Site Visitor Evaluation Methods:
- Review of program budget and/or other fiscal appropriations
- Interviews with administrative personnel
- Interviews with faculty

2.10 For those institutions and programs for which the JRCERT serves as gatekeeper for Title IV financial aid, maintains compliance with United States Department of Education (USDE) policies and procedures.

Explanation:
A gatekeeper is defined as an agency holding responsibility for oversight of the distribution, record keeping, and repayment of Title IV financial aid. The program must comply with USDE requirements to participate in Title IV financial aid.

If the program has elected to participate in Title IV financial aid and the JRCERT is identified as the gatekeeper, the program must: maintain financial documents including audit and budget processes confirming appropriate allocation and use of financial resources, have a monitoring process for student loan default rates, have an appropriate accounting system providing documentation for management of Title IV financial aid and expenditures, and inform students of responsibility for timely repayment of Title IV financial aid.

Required Program Response:
- Provide evidence that Title IV financial aid is managed and distributed according to the USDE regulations to include:
    - recent student loan default data and
    - results of financial or compliance audits.
- Describe how the program informs students of their responsibility for timely repayment of financial aid.

Possible Site Visitor Evaluation Methods:
- Review of records
- Interviews with administrative personnel
- Interviews with faculty
- Interviews with students

Summary for Standard Two

1. List the major strengths of **Standard Two**, in order of importance.

2. List the major concerns of **Standard Two**, in order of importance.

3. Provide the program's plan for addressing each concern identified.

4. Describe any progress already achieved in addressing each concern.

5. Describe any constraints in implementing improvements.

Standard Three
Curriculum and Academic Practices

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

Objectives:

In support of **Standard Three**, the program:

3.1 Has a program mission statement that defines its purpose and scope and is periodically reevaluated.

3.2 Provides a well-structured, competency-based curriculum that prepares students to practice in the professional discipline.

3.3 Provides learning opportunities in current and developing imaging and/or therapeutic technologies.

3.4 Assures an appropriate relationship between program length and the subject matter taught for the terminal award offered.

3.5 Measures the length of all didactic and clinical courses in clock hours or credit hours.

3.6 Maintains a master plan of education.

3.7 Provides timely and supportive academic, behavioral, and clinical advisement to students enrolled in the program.

3.8 Documents that the responsibilities of faculty and clinical staff are delineated and performed.

3.9 Evaluates program faculty and clinical instructor performance and shares evaluation results regularly to assure instructional responsibilities are performed.

3.1 Has a program mission statement that defines its purpose and scope and is periodically reevaluated.

Explanation:
The program's mission statement should be consistent with that of its sponsoring institution. The program's mission statement should clearly define the purpose or intent toward which the program's efforts are directed. Periodic evaluation assures that the program's mission statement is effective.

Required Program Response:
- Provide a copy of the program's mission statement.
- Provide meeting minutes that document periodic reevaluation of the mission statement.

Possible Site Visitor Evaluation Methods:
- Review of published program materials
- Review of meeting minutes
- Review of master plan of education
- Interviews with faculty

3.2 Provides a well-structured, competency-based curriculum that prepares students to practice in the professional discipline.

Explanation:
The well-structured curriculum must be comprehensive, appropriately sequenced, include current information, and provide for evaluation of student achievement. A competency-based curriculum allows for effective student learning by providing a knowledge foundation prior to performance of procedures. Continual refinement of the competencies achieved is necessary so that students can demonstrate enhanced performance in a variety of situations and patient conditions. In essence, competency-based education is an ongoing process, not an end product.

Programs must follow a JRCERT-adopted curriculum. An adopted curriculum is defined as:

- the latest American Society of Radiologic Technologists professional curriculum and/or
- another professional curriculum adopted by the JRCERT Board of Directors following review and recommendation by the JRCERT Standards Committee.

Use of a standard curriculum promotes consistency in radiography education and prepares the student to practice in the professional discipline. At a minimum, the curriculum should promote qualities that are necessary for students/graduates to practice competently, make good decisions, assess situations, provide appropriate patient care, communicate effectively, and keep abreast of current advancements within the profession. Expansion of the curricular content beyond the minimum is at the discretion of the program.

The program must submit the latest curriculum analysis grid (available at www.jrcert.org).

Required Program Response:

- Describe how the program's curriculum is structured.
- Describe the program's competency-based system.
- Submit current curriculum analysis grid.
- Describe how the program's curriculum is delivered, including the method of delivery for distance education courses.
- Identify which courses, if any, are offered via distance education.
- Describe alternative learning options, if applicable (e.g., part-time, evening and/or weekend curricular track).

Possible Site Visitor Evaluation Methods:

- Review of master plan of education
- Review of didactic and clinical curriculum sequence
- Review of analysis of graduate and employer surveys
- Interviews with faculty
- Interviews with students
- Observation of a portion of any course offered via distance delivery
- Review of part-time, evening and/or weekend curricular track, if applicable

3.3 Provides learning opportunities in current and developing imaging and/or therapeutic technologies.

Explanation:
The program must provide learning opportunities in current and developing imaging and/or therapeutic technologies. It is the program's prerogative to decide which technologies should be included in the didactic and/or clinical curriculum. Programs are not required to offer clinical rotations in developing imaging and/or therapeutic technologies; however, these clinical rotations are strongly encouraged to enhance student learning.

Required Program Response:
Describe how the program provides opportunities in developing technologies in the didactic and/or clinical curriculum.

Possible Site Visitor Evaluation Methods:
- Review of master plan of education
- Interviews with faculty
- Interviews with students

3.4 Assures an appropriate relationship between program length and the subject matter taught for the terminal award offered.

Explanation:
Program length must be consistent with the terminal award. The JRCERT defines program length as the duration of the program, which may be stated as total academic or calendar year(s), total semesters, trimesters, or quarters.

Required Program Response:
Describe the relationship between the program length and the terminal award offered.

Possible Site Visitor Evaluation Methods:

- Review of course catalog
- Review of published program materials
- Review of class schedules
- Interviews with faculty
- Interviews with students

3.5 Measures the length of all didactic and clinical courses in clock hours or credit hours.

Explanation:
Defining the length of didactic and clinical courses facilitates student transfer of credit and the awarding of financial aid. The formula for calculating assigned clock/credit hours must be consistently applied for all didactic and all clinical courses, respectively.

Required Program Response:

- Describe the method used to award credit hours for lecture, laboratory and clinical courses.
- Provide a copy of the program's policies and procedures for determining credit hours and an example of how such policy has been applied to the program's coursework.
- Provide a list of all didactic and clinical courses with corresponding clock or credit hours.

Possible Site Visitor Evaluation Methods:

- Review of published program materials
- Review of class schedules
- Interviews with faculty
- Interviews with students

3.6 Maintains a master plan of education.

Explanation:
A master plan provides an overview of the program and allows for continuity among, and documentation of, all aspects of the program. In the event of new faculty and/or leadership to the program, the master plan provides the information needed to understand the program and its operations.

The plan should be evaluated annually, updated, and must include the following:

- course syllabi (didactic and clinical courses) and
- program policies and procedures.

While there is no prescribed format for the master plan, the component parts should be identified and readily available. If the components are not housed together, the program must list the location of each component. If the program chooses to use an electronic format, the components must be accessible by all program faculty.

Required Program Response:

- Identify the location of the component parts of the master plan of education.
- Provide a Table of Contents for the program's master plan.

Possible Site Visitor Evaluation Methods:

- Review of master plan of education
- Interview with program director
- Interviews with faculty

3.7 Provides timely and supportive academic, behavioral, and clinical advisement to students enrolled in the program.

Explanation:
Appropriate advisement promotes student achievement. Student advisement should be formative, summative, and must be shared with students in a timely manner. Programs are encouraged to develop written advisement procedures.

Required Program Response:
- Describe procedures for advisement.
- Provide sample records of student advisement.

Possible Site Visitor Evaluation Methods:
- Review of students' records
- Interviews with faculty
- Interviews with clinical instructor(s)
- Interviews with students

3.8 Documents that the responsibilities of faculty and clinical staff are delineated and performed.

- Full-time Program Director:

  Assures effective program operations,

  Oversees ongoing program assessment,

  Participates in budget planning,

  Maintains current knowledge of the professional discipline and educational methodologies through continuing professional development, and

  Assumes the leadership role in the continued development of the program.

- Full-time Clinical Coordinator:

  Correlates clinical education with didactic education,

  Evaluates students,

  Participates in didactic and/or clinical instruction,

  Supports the program director to help assure effective program operation,

  Coordinates clinical education and evaluates its effectiveness,

  Participates in the assessment process,

  Cooperates with the program director in periodic review and revision of clinical course materials,

  Maintains current knowledge of the discipline and educational methodologies through continuing professional development, and

  Maintains current knowledge of program policies, procedures, and student progress.

- Full-time Didactic Program Faculty:

  Prepares and maintains course outlines and objectives, instructs and evaluates students, and reports progress,

  Participates in the assessment process,

  Supports the program director to help assure effective program operation,

  Cooperates with the program director in periodic review and revision of course materials, and

  Maintains appropriate expertise and competence through continuing professional development.

- Part-time Didactic Program Faculty:

Prepares and maintains course outlines and objectives, instructs and evaluates students, and reports progress,

Participates in the assessment process, when appropriate,

Cooperates with the program director in periodic review and revision of course materials, and

Maintains appropriate expertise and competence through continuing professional development.

- Clinical Instructor(s):

  Is knowledgeable of program goals,

  Understands the clinical objectives and clinical evaluation system,

  Understands the sequencing of didactic instruction and clinical education,

  Provides students with clinical instruction and supervision,

  Evaluates students' clinical competence,

  Maintains competency in the professional discipline and instructional and evaluative techniques through continuing professional development, and

  Maintains current knowledge of program policies, procedures, and student progress.

- Clinical Staff:

  Understand the clinical competency system,

  Understand requirements for student supervision,

  Support the educational process, and

  Maintain current knowledge of program policies, procedures, and student progress.

Explanation:
The clear delineation of responsibilities facilitates accountability. Faculty and clinical staff responsibilities must be clearly delineated and must support the program's mission.

Full- and part-time status is determined by, and consistent with, the sponsoring institution's definition. At all times when students are enrolled in didactic and/or clinical components, the program director and/or clinical coordinator must assure that their program responsibilities are fulfilled.

Required Program Response:
Provide documentation that faculty and clinical staff positions are clearly delineated.

Possible Site Visitor Evaluation Methods:
- Review of position descriptions
- Review of handbooks
- Interviews with faculty and clinical staff to assure responsibilities are being performed
- Interviews with students

3.9 Evaluates program faculty and clinical instructor performance and shares evaluation results regularly to assure instructional responsibilities are performed.

Explanation:
The performance of program faculty and clinical instructor(s) must be evaluated minimally once per year. Evaluation assures that instructional responsibilities are performed and provides administration and faculty with information to evaluate performance. Evaluation promotes proper educational methodology and increases program effectiveness. Evaluation results must be shared minimally once per year with the respective program faculty and clinical instructor(s) being evaluated to assure continued professional development. Any evaluation results that identify concerns must be discussed with the respective individual(s) as soon as possible.

Required Program Response:
- Describe the evaluation process.
- Describe how evaluation results are shared with program faculty and clinical instructor(s).
- Provide samples of evaluations of program faculty.
- Provide samples of evaluations of clinical instructor(s).

Possible Site Visitor Evaluation Methods:
- Review of program evaluation materials
- Review of clinical instructor evaluation
- Interviews with administrative personnel
- Interviews with program faculty
- Interviews with clinical instructor(s)
- Interviews with students

Summary for Standard Three

1. List the major strengths of **Standard Three**, in order of importance.

2. List the major concerns of **Standard Three**, in order of importance.

3. Provide the program's plan for addressing each concern identified.

4. Describe any progress already achieved in addressing each concern.

5. Describe any constraints in implementing improvements.

Standard Four
Health and Safety

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

Objectives:

In support of **Standard Four**, the program:

4.1 Assures the radiation safety of students through the implementation of published policies and procedures that are in compliance with Nuclear Regulatory Commission regulations and state laws as applicable.

4.2 Has a published pregnancy policy that is consistent with applicable federal regulations and state laws, made known to accepted and enrolled female students, and contains the following elements:

- Written notice of voluntary declaration,
- Option for student continuance in the program without modification, and
- Option for written withdrawal of declaration.

4.3 Assures that students employ proper radiation safety practices.

4.4 Assures that medical imaging procedures are performed under the direct supervision of a qualified radiographer until a student achieves competency.

4.5 Assures that medical imaging procedures are performed under the indirect supervision of a qualified radiographer after a student achieves competency.

4.6 Assures that students are directly supervised by a qualified radiographer when repeating unsatisfactory images.

4.7 Assures sponsoring institution's policies safeguard the health and safety of students.

4.8 Assures that students are oriented to clinical setting policies and procedures in regard to health and safety.

4.1 Assures the radiation safety of students through the implementation of published policies and procedures that are in compliance with Nuclear Regulatory Commission regulations and state laws as applicable.

Explanation:
Appropriate policies and procedures help assure that student radiation exposure is kept as low as reasonably achievable (ALARA). The program must maintain and monitor student radiation exposure data. This information must be made available to students within thirty (30) school days following receipt of data. The program must have a published protocol that identifies a threshold dose for incidents in which dose limits are exceeded. Programs are encouraged to identify a threshold dose below those identified in NRC regulations.

Required Program Response:
- Describe how the policies are made known to enrolled students.
- Describe how radiation exposure data is made available to students.
- Provide copies of appropriate policies.

Possible Site Visitor Evaluation Methods:
- Review of published program materials
- Review of student records
- Review of student dosimetry reports
- Interviews with faculty
- Interviews with students

4.2 Has a published pregnancy policy that is consistent with applicable federal regulations and state laws, made known to accepted and enrolled female students, and contains the following elements:

- **Written notice of voluntary declaration,**
- **Option for student continuance in the program without modification, and**
- **Option for written withdrawal of declaration.**

Explanation:

Appropriate radiation safety practices help assure that radiation exposure to the student and fetus are kept as low as reasonably achievable (ALARA). The policy must include appropriate information regarding radiation safety for the student and fetus. The program must allow for student continuance in the clinical component of the program without modification. The program may offer clinical component options such as: (1) clinical reassignments and/or (2) leave of absence.

Required Program Response:

- Describe how the pregnancy policy is made known to accepted and enrolled female students.
- Provide a copy of the program's pregnancy policy.

Possible Site Visitor Evaluation Methods:

- Review of published program materials
- Review of student records
- Interviews with faculty
- Interviews with clinical instructor(s)
- Interviews with students

4.3 Assures that students employ proper radiation safety practices.

Explanation:
The program must assure that students are instructed in the utilization of imaging equipment, accessories, optimal exposure factors, and proper patient positioning to minimize radiation exposure to patients, selves, and others. These practices assure radiation exposures are kept as low as reasonably achievable (ALARA).

Students must understand basic radiation safety practices prior to assignment to clinical settings. 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. As students progress in the program, they must become increasingly proficient in the application of radiation safety practices.

The program must also assure radiation safety in energized laboratories. Students' utilization of energized laboratories must be under the supervision of a qualified radiographer who is readily available. If a qualified radiographer is not readily available to provide supervision, the radiation exposure mechanism must be disabled. Programs are encouraged to develop policies regarding safe and appropriate use of energized laboratories by students.

Required Program Response:
- Describe how the curriculum sequence and content prepares students for safe radiation practices.
- Provide the curriculum sequence.
- Provide policies/procedures regarding radiation safety.

Possible Site Visitor Evaluation Methods:
- Review of program curriculum
- Review of radiation safety policies/procedures
- Review of student handbook
- Review of student records
- Review of student dosimetry reports
- Interviews with faculty
- Interviews with clinical instructor(s)
- Interviews with clinical staff
- Interviews with students

4.4 Assures that medical imaging procedures are performed under the direct supervision of a qualified radiographer until a student achieves competency.

Explanation:
Direct supervision assures patient safety and proper educational practices. The JRCERT defines direct supervision as student supervision by a qualified radiographer who:

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

Students must be directly supervised until competency is achieved.

Required Program Response:

- Describe how the direct supervision requirement is enforced and monitored in the clinical setting.
- Provide documentation that the program's direct supervision requirement is made known to students, clinical instructors, and clinical staff.

Possible Site Visitor Evaluation Methods:

- Review of published program materials
- Review of student records
- Review of meeting minutes
- Interviews with faculty
- Interviews with clinical instructor(s)
- Interviews with clinical staff
- Interviews with students

4.5 Assures that medical imaging procedures are performed under the indirect supervision of a qualified radiographer after a student achieves competency.

Explanation:
Indirect supervision promotes patient safety and proper educational practices. The JRCERT defines indirect supervision as that 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.

Required Program Response:
- Describe how the indirect supervision requirement is enforced and monitored in the clinical setting.
- Provide documentation that the program's indirect supervision requirement is made known to students, clinical instructors, and clinical staff.

Possible Site Visitor Evaluation Methods:
- Review of published program materials
- Review of student records
- Review of meeting minutes
- Interviews with faculty
- Interviews with clinical instructor(s)
- Interviews with clinical staff
- Interviews with students

4.6 Assures that students are directly supervised by a qualified radiographer when repeating unsatisfactory images.

Explanation:
The presence of a qualified radiographer during the repeat of an unsatisfactory image assures patient safety and proper educational practices. A qualified radiographer must be physically present during the conduct of a repeat image and must approve the student's procedure prior to re-exposure.

Required Program Response:
- Describe how the direct supervision requirement for repeat images is enforced and monitored in the clinical setting.
- Provide documentation that the program's direct supervision requirement for repeat images is made known to students, clinical instructors, and clinical staff.

Possible Site Visitor Evaluation Methods:
- Review of published program materials
- Review of student records
- Review of meeting minutes
- Interviews with faculty
- Interviews with clinical instructor(s)
- Interviews with clinical staff
- Interviews with students

4.7 Assures sponsoring institution's policies safeguard the health and safety of students.

Explanation:
Appropriate sponsoring institutional policies and procedures assure that students are protected. These policies must, at a minimum, address emergency preparedness, harassment, communicable diseases, and substance abuse. Policies and procedures must meet federal and/or state requirements as applicable. Enrolled students must be informed of policies and procedures.

Required Program Response:
Provide program policies that safeguard the health and safety of students.

Possible Site Visitor Evaluation Methods:
- Review of published program materials
- Review of student records
- Interviews with faculty
- Interviews with students

4.8 Assures that students are oriented to clinical setting policies and procedures in regard to health and safety.

Explanation:
Appropriate orientation assures that students are cognizant of clinical policies and procedures. The policies and procedures must, at a minimum, address the following: hazards (fire, electrical, chemical), emergency preparedness, medical emergencies, HIPAA, and Standard Precautions.

Required Program Response:

- Describe the process for orienting students to clinical settings.
- Provide documentation that students are apprised of policies and procedures specific to each clinical setting.

Possible Site Visitor Evaluation Methods:

- Review of orientation process
- Review of student records
- Interviews with faculty
- Interviews with clinical instructor(s)
- Interviews with students

Summary for Standard Four

1. List the major strengths of **Standard Four**, in order of importance.

2. List the major concerns of **Standard Four**, in order of importance.

3. Provide the program's plan for addressing each concern identified.

4. Describe any progress already achieved in addressing each concern.

5. Describe any constraints in implementing improvements.

Standard Five
Assessment

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

Objectives:

In support of **Standard Five**, the program:

Student Learning

5.1 Develops an assessment plan that, at a minimum, measures the program's student learning outcomes in relation to the following goals: clinical competence, critical thinking, professionalism, and communication skills.

Program Effectiveness

5.2 Documents the following program effectiveness data:

- Five-year average credentialing examination pass rate of not less than 75 percent at first attempt within six months of graduation,
- Five-year average job placement rate of not less than 75 percent within twelve months of graduation,
- Program completion rate,
- Graduate satisfaction, and
- Employer satisfaction.

5.3 Makes available to the general public program effectiveness data (credentialing examination pass rate, job placement rate, and program completion rate) on an annual basis.

Analysis and Actions

5.4 Analyzes and shares student learning outcome data and program effectiveness data to foster continuous program improvement.

5.5 Periodically evaluates its assessment plan to assure continuous program improvement.

5.1 Develops an assessment plan that, at a minimum, measures the program's student learning outcomes in relation to the following goals: clinical competence, critical thinking, professionalism, and communication skills.

Explanation:
Assessment is the systematic collection, review, and use of information to improve student learning and educational quality. An assessment plan helps assure continuous improvement and accountability. Minimally, the plan must include a separate goal in relation to each of the following: clinical competence, critical thinking, professionalism, and communication skills. The plan must include student learning outcomes, measurement tools, benchmarks, and identify timeframes and parties responsible for data collection.

For additional information regarding assessment, please refer to www.jrcert.org.

Required Program Response:
Provide a copy of the program's current assessment plan.

Possible Site Visitor Evaluation Methods:
- Review of assessment plan
- Review of assessment tools
- Interviews with faculty

5.2 Documents the following program effectiveness data:

- **Five-year average credentialing examination pass rate of not less than 75 percent at first attempt within six months of graduation,**
- **Five-year average job placement rate of not less than 75 percent within twelve months of graduation,**
- **Program completion rate,**
- **Graduate satisfaction, and**
- **Employer satisfaction.**

Explanation:

Credentialing examination, job placement, and program completion data must be reported annually to the JRCERT. Graduate and employer satisfaction data must be collected as part of the program's assessment process.

Credentialing examination pass rate is defined as the number of student graduates who pass, on first attempt, the American Registry of Radiologic Technologists (ARRT) certification examination or an unrestricted state licensing examination compared with the number of graduates who take the examination within six months of graduation.

Job placement rate is defined as the number of graduates employed in the radiologic sciences compared to the number of graduates actively seeking employment in the radiologic sciences. The JRCERT has defined not actively seeking employment as: 1) graduate fails to communicate with program officials regarding employment status after multiple attempts, 2) graduate is unwilling to seek employment that requires relocation, 3) graduate is unwilling to accept employment due to salary or hours, 4) graduate is on active military duty, and/or 5) graduate is continuing education.

Program completion rate is defined as the number of students who complete the program within 150% of the stated program length. The program must establish a benchmark for its program completion rate. The program specifies the entry point (e.g., required orientation date, final drop/add date, final date to drop with 100% tuition refund, official class roster date, etc.) used in calculating program's completion rate.

Graduate and employer satisfaction may be measured through a variety of methods. The methods and timeframes for collection of the graduate and employer satisfaction data are the prerogative of the program.

Required Program Response:

Provide actual outcome data in relation to program effectiveness.

Possible Site Visitor Evaluation Methods:

- Review of program effectiveness data
- Interviews with faculty

5.3 Makes available to the general public program effectiveness data (credentialing examination pass rate, job placement rate, and program completion rate) on an annual basis.

Explanation:
Program accountability is enhanced by making its effectiveness data available to the program's communities of interest and the general public. In efforts to increase accountability and transparency, the program must publish, at a minimum, its five -year average credentialing examination pass rate, five-year average job placement rate, and program completion rate data on its Web site to allow the public access to this data. The program effectiveness data should clearly identify the sample size associated with each associated measure (i.e., number of first time test takers, number of graduates actively seeking employment, number of graduates).

Additionally, the JRCERT will post five-year average credentialing examination pass rate, five-year average job placement rate, and program completion rate data at www.jrcert.org. The program must publish the JRCERT URL (www.jrcert.org) to allow the public access to this data.

Required Program Response:
- Provide copies of publications that contain the program's program effectiveness data (credentialing examination pass rate, job placement rate, and program completion rate).
- Provide samples of publications that document the availability of program effectiveness data via the JRCERT URL address from the institution's/program's Web site.

Possible Site Visitor Evaluation Methods:
- Review of program publications
- Review of institutional and/or program Web site
- Interviews with faculty
- Interviews with students

5.4 Analyzes and shares student learning outcome data and program effectiveness data to foster continuous program improvement.

Explanation:
Analysis of student learning outcome data and program effectiveness data allows the program to identify strengths and areas for improvement to bring about systematic program improvement. This analysis also provides a means of accountability to communities of interest. It is the program's prerogative to determine its communities of interest.

The analysis must be reviewed with the program's communities of interest. One method to accomplish this would be the development of an assessment committee. The composition of the assessment committee may be the program's advisory committee or a separate committee that focuses on the assessment process. The committee should be used to provide feedback on student achievement and assist the program with strategies for improving its effectiveness. This review should occur at least annually and must be formally documented.

For additional information regarding assessment, please refer to www.jrcert.org.

Required Program Response:
- Describe how the program analyzes student learning outcome data and program effectiveness data to identify areas for program improvement.
- Describe how the program shares its student learning outcome data and program effectiveness data with its communities of interest.
- Describe examples of changes that have resulted from the analysis of student learning outcome data and program effectiveness data and discuss how these changes have led to program improvement.
- Provide a copy of the program's actual student learning outcome data since the last accreditation award. This data may be documented on previous assessment plans or on a separate document.
- Provide documentation that student learning outcome data and program effectiveness data has been shared with communities of interest.

Possible Site Visitor Evaluation Methods:
- Review of student learning outcome data and program effectiveness data to support the assessment plan
- Review of representative samples of measurement tools used for data collection
- Review of aggregate data
- Review of meeting minutes related to the assessment process
- Interviews with faculty

5.5 Periodically evaluates its assessment plan to assure continuous program improvement.

Explanation:
Identifying and implementing needed improvements in the assessment plan leads to programmatic improvement and renewal. As part of the assessment cycle, the program should review its assessment plan to assure that assessment measures are adequate and that the assessment process is effective in measuring student learning outcomes. At a minimum, this evaluation must occur at least every two years and be documented in meeting minutes.

For additional information regarding assessment, please refer to www.jrcert.org.

Required Program Response:
- Describe how this evaluation has occurred.
- Provide documentation that the plan is evaluated at least once every two years.

Possible Site Visitor Evaluation Methods:
- Review of meeting minutes related to the assessment process
- Review of assessment committee meeting minutes, if applicable
- Interviews with faculty

Summary for Standard Five

1. List the major strengths of **Standard Five**, in order of importance.

2. List the major concerns of **Standard Five**, in order of importance.

3. Provide the program's plan for addressing each concern identified.

4. Describe any progress already achieved in addressing each concern.

5. Describe any constraints in implementing improvements.

Standard Six

Institutional/Programmatic Data

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

Objectives:

In support of **Standard Six**, the program:

Sponsoring Institution

6.1 Documents the continuing institutional accreditation of the sponsoring institution.

6.2 Documents that the program's energized laboratories are in compliance with applicable state and/or federal radiation safety laws.

Personnel

6.3 Documents that all faculty and staff possess academic and professional qualifications appropriate for their assignments.

Clinical Settings

6.4 Establishes and maintains affiliation agreements with clinical settings.

6.5 Documents that clinical settings are in compliance with applicable state and/or federal radiation safety laws.

Program Sponsorship, Substantive Changes, and Notification of Program Officials

6.6 Complies with requirements to achieve and maintain JRCERT accreditation.

6.1 Documents the continuing institutional accreditation of the sponsoring institution.

Explanation:
The goal of accreditation is to ensure that the education provided by institutions meets acceptable levels of quality. The sponsoring institution must be accredited by:

- an agency recognized by the United States Department of Education (USDE) and/or Council for Higher Education Accreditation (CHEA),
- The Joint Commission (TJC), or
- equivalent standards.

Required Program Response:
Provide documentation of current institutional accreditation for the sponsoring institution. This may be a copy of the award letter, certificate, or printout of the institutional accreditor's Web page.

6.2 Documents that the program's energized laboratories are in compliance with applicable state and/or federal radiation safety laws.

Explanation:
Compliance with applicable laws promotes a safe environment for students and others. Records of compliance must be maintained for the program's energized laboratories.

Required Program Response:
Provide certificates and/or letters for each energized laboratory documenting compliance with state and/or federal radiation safety laws.

6.3 Documents that all faculty and staff possess academic and professional qualifications appropriate for their assignments.

- Full-time Program Director:

  Holds, at a minimum, a master's degree,

  Is proficient in curriculum design, program administration, evaluation, instruction, and academic advising,

  Documents three years clinical experience in the professional discipline,

  Documents two years of experience as an instructor in a JRCERT-accredited program, and

  Holds American Registry of Radiologic Technologists current registration in radiography or equivalent (i.e., unrestricted state license for the state in which the program is located).

- Full-time Clinical Coordinator:

  Holds, at a minimum, a baccalaureate degree,

  Is proficient in curriculum development, supervision, instruction, evaluation, and academic advising,

  Documents two years clinical experience in the professional discipline,

  Documents a minimum of one year of experience as an instructor in a JRCERT-accredited program, and

  Holds American Registry of Radiologic Technologists current registration in radiography or equivalent (i.e., unrestricted state license for the state in which the program is located).

- Full-time Didactic Program Faculty:

  Holds, at a minimum, a baccalaureate degree,

  Is qualified to teach the subject,

  Is knowledgeable of course development, instruction, evaluation, and academic advising,

  Documents two years clinical experience in the professional discipline, and

  Holds American Registry of Radiologic Technologists current registration in radiography or equivalent (i.e., unrestricted state license for the state in which the program is located).

- Part-time Didactic Program Faculty

  Holds academic and/or professional credentials appropriate to the subject content area taught and

  Is knowledgeable of course development, instruction, evaluation, and academic advising.

- Clinical Instructor(s):

  Is proficient in supervision, instruction, and evaluation,

  Documents two years clinical experience in the professional discipline, and

  Holds American Registry of Radiologic Technologists current registration in radiography or equivalent (i.e., unrestricted state license for the state in which the clinical setting is located).

- Clinical Staff:

  Holds American Registry of Radiologic Technologists current registration in radiography or equivalent (i.e., unrestricted state license for the state in which the clinical setting is located).

Explanation:
Appropriate knowledge, proficiency, and certification (if appropriate) provide a foundation that promotes a sound educational environment.

Faculty and staff must possess academic and professional qualification(s) appropriate for their assignment. Clinical instructors and clinical staff supervising students' performance in the clinical component of the program must document ARRT registration (or equivalent) or other appropriate credentials. Appropriate credentials, other than ARRT registration (or equivalent), may be used for qualified health care practitioners supervising students in specialty areas (e.g., registered nurse supervising students performing patient care skills, phlebotomist supervising students performing venipuncture, etc.).

Required Program Response:
- For all program officials not previously identified on the program's database , submit a request for recognition of program officials including a current curriculum vitae and documentation of current registration by the American Registry of Radiologic Technologists* or equivalent.
- For all currently recognized program officials [program director, educational coordinator (if applicable), full-time didactic faculty, and all clinical preceptors], submit a current registration by the American Registry of Radiologic Technologists* or equivalent.

*These may be copies of current registration cards or "ARRT Identification" page available at www.arrt.org.

6.4 Establishes and maintains affiliation agreements with clinical settings.

Explanation:
Formalizing relations between the program and the clinical setting helps assure the quality of clinical education by delineating appropriate responsibilities of the program and the clinical setting. An appropriate termination clause assures that students will have an opportunity to complete the clinical education component. The JRCERT defines an affiliation agreement as a formal written understanding between an institution sponsoring the program and an independent clinical setting.

An affiliation agreement must identify the responsibilities of all parties and, specifically, must address student supervision, student liability, and provide adequate notice of termination of the agreement. An affiliation agreement is not needed for clinical settings owned by the sponsoring institution; however, a memorandum of understanding between the clinical setting and the sponsoring institution is recommended. At a minimum, the memorandum should address responsibilities of both parties and student supervision.

Required Program Response:
Provide copies of current, signed affiliation agreements with each clinical setting.

6.5 Documents that clinical settings are in compliance with applicable state and/or federal radiation safety laws.

Explanation:
Compliance with applicable laws promotes a safe environment for students and others. Records of compliance must be maintained for each clinical setting. Clinical settings may be recognized by The Joint Commission (TJC), DNV Healthcare, Inc., Healthcare Facilities Accreditation Program (HFAP), or an equivalent agency, or may hold a state-issued license.

Required Program Response:
Provide letters, certificates, or printouts of Web pages demonstrating the current recognition status of each clinical setting.

6.6 Complies with requirements to achieve and maintain JRCERT accreditation.

Explanation:
Programs must comply with JRCERT policies and procedures to maintain accreditation. JRCERT accreditation requires that the sponsoring institution has primary responsibility for the educational program and grants the terminal award.

Sponsoring institutions may include educational programs established in vocational/technical schools, colleges, universities, hospitals, or military facilities. The JRCERT also recognizes a consortium as an appropriate sponsor of an educational program. A consortium is two or more academic or clinical institutions that have formally agreed to sponsor the development and continuation of an educational program. The consortium must be structured to recognize and perform the responsibilities and functions of a sponsoring institution.

The JRCERT does not recognize branch campuses. The JRCERT requires that each program location have a separate accreditation award.

Additionally, the JRCERT will not recognize a healthcare system as the program sponsor. A healthcare system consists of multiple institutions operating under a common governing body or parent corporation. A specific facility within the healthcare system must be identified as the sponsor.

The JRCERT requires programs to maintain a current and accurate database. Updates should be reflected within thirty (30) days of effective change date. Additionally, the JRCERT requires notification of substantive changes within thirty (30) days of implementation.

Required Program Response:
- Report any database changes.
- Report any substantive change not previously submitted.

Summary for Standard Six

1. List the major strengths of **Standard Six**, in order of importance.

2. List the major concerns of **Standard Six**, in order of importance.

3. Provide the program's plan for addressing each concern identified.

4. Describe any progress already achieved in addressing each concern.

5. Describe any constraints in implementing improvements.

Awarding, Maintaining, and Administering Accreditation

A. Program/Sponsoring Institution Responsibilities

1. Applying for Accreditation

The accreditation review process conducted by the Joint Review Committee on Education in Radiologic Technology (JRCERT) can be initiated only at the written request of the chief executive officer or an officially designated representative of the sponsoring institution.

This process is initiated by submitting an application and self-study report, prepared according to JRCERT guidelines, to:

Joint Review Committee on Education in Radiologic Technology
20 North Wacker Drive, Suite 2850
Chicago, IL 60606-3182

2. Administrative Requirements for Maintaining Accreditation

a. Submitting the self-study report or a required progress report within a reasonable period of time, as determined by the JRCERT.

b. Agreeing to a reasonable site visit date before the end of the period for which accreditation was awarded.

c. Informing the JRCERT, within a reasonable period of time, of changes in the institutional or program officials, program director, clinical coordinator, full-time didactic faculty, and clinical instructor(s).

d. Paying JRCERT fees within a reasonable period of time.

e. Returning, by the established deadline, a completed Annual Report.

f. Returning, by the established deadline, any other information requested by the JRCERT.

Programs are required to comply with these and other administrative requirements for maintaining accreditation. Additional information on policies and procedures is available at www.jrcert.org.

Program failure to meet administrative requirements for maintaining accreditation will lead to being placed on Administrative Probationary Accreditation and result in Withdrawal of Accreditation.

B. JRCERT Responsibilities

1. Administering the Accreditation Review Process

The JRCERT reviews educational programs to assess compliance with the **Standards for an Accredited Educational Program in Radiography**.

The accreditation process includes a site visit.

Before the JRCERT takes accreditation action, the program being reviewed must respond to the report of findings.

The JRCERT is responsible for recognition of clinical settings.

2. Accreditation Actions

JRCERT accreditation actions for Probation may be reconsidered following the established procedure.

JRCERT accreditation actions for Accreditation Withheld or Accreditation Withdrawn may be appealed following the established procedure. Procedures for appeal are available at www.jrcert.org.

All other JRCERT accreditation actions are final.

A program or sponsoring institution may, at any time prior to the final accreditation action, withdraw its request for initial or continuing accreditation.

Educators may wish to contact the following organizations for additional information and materials:

accreditation:

Joint Review Committee on Education in Radiologic Technology
20 North Wacker Drive, Suite 2850
Chicago, IL 60606-3182
(312) 704-5300
www.jrcert.org

curriculum:

American Society of Radiologic Technologists
15000 Central Avenue, S.E.
Albuquerque, NM 87123-3909
(505) 298-4500
www.asrt.org

certification:

American Registry of Radiologic Technologists
1255 Northland Drive
St. Paul, MN 55120-1155
(651) 687-0048
www.arrt.org

JRCERT
20 North Wacker Drive
Suite 2850
Chicago, IL 60606-3182
(312) 704-5300
(312) 704-5304 (fax)
mail@jrcert.org (e-mail)
www.jrcert.org