



Shawnee State
UNIVERSITY

Radiologic Technology Program Handbook

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Student Handbook Introduction

This handbook is designed to outline the policies and procedures followed by the students in the Radiologic Technology Program at Shawnee State University. Each student should become aware of the policies and procedures contained herein for the satisfactory completion of the requirements of the Radiologic Technology Program.

The academic policies adopted by the Radiologic Technology Program are contained in this handbook. All students enrolled in the Radiologic Technology Program must observe these minimum standards. Additionally, the program follows the policies and procedures governed by the university. Please see University Policies for additional information located at <http://shawnee.edu/leadership/policies/>. Students are required to adhere to both the university and program policies and procedures.

In this handbook the student will find the necessary requirements for the satisfactory completion of each academic semester. Students are required to sign the acknowledgement form located in appendix A. The student is held responsible for familiarizing him/herself with the academic policies and procedures contained in this program handbook.

The clinical sessions are the place where the student can apply what he/she has learned in the classroom and practiced in the laboratory. As the student progresses throughout the program, he/she will be performing more examinations more independently. As the student approaches the end of the program he/she will have gained the knowledge and ability to perform all radiographic procedures performed in a general or acute care hospital or office practice.

The following points are important to remember:

- You will be working with a variety of people. You may not share the same values or beliefs but you should always be respectful of each person's individuality.
- If you are to be successful in your clinical work you have to exhibit a professional, caring and dedicated attitude towards the care you provide to patients, families and interaction with other health care personnel.
- You are a **guest** at the clinical affiliate. The clinical affiliates have the right to accept or reject a student, which could result in the student being delayed in a program or unable to complete the requirements for graduation.

The Radiologic Technology Program at Shawnee State University documents student's clinical time, evaluations, and competencies utilizing the *Trajecsys.com* web site. Occasional use of forms in a paper format may be required for clinical sites that do not have access to the website or to rotations in advanced modalities. The clinical forms in the back of this handbook are examples of the forms on the Shawnee State University's *Trajecsys.com web pages*, some changes may be made to adapt the forms to the web pages.

The student should also be aware that policies are submitted at the time this handbook was written and are subject to change. Policies can be amended, removed or suspended at program faculty's discretion. Additionally, not every circumstance can be accounted for and will be handled on a case by case basis.

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Clinical Education Centers

Clinical Site	Phone Number	Address	Clinical Instructor(s)
Adams County Regional Medical Center	937-386-3461 or 386-3462 x-ray 3460	230 Medical Center Dr. Seaman, OH 45679	Jessica Wamsley, RT
Adena Pike Medical Center	740-947-6530	100 Dawn Lane Waverly, OH 45690	Rachel Mootz, RT
Adena Regional Medical Center	740-779-7666	272 Hospital Road Chillicothe, OH 45601	Nick Hart, RT
Adena Regional Medical Center- Jackson	740-395-8050	1000 Veterans Dr. Jackson, OH 45640	Kelli Fillinger, RT
*Adena Regional Medical Center- Western Ave.	740-779-4000	55 Centennial Blv Chillicothe, OH 45601	Holly Hiller, RT
*Adena Regional Medical Center- Waverly	740-941-5150	12340 OH 104 Waverly, OH 45690	Michele McCall, RT
*Adena Regional Medical Center- Greenfield	937-981-9400	550 Mirabeau St. Greenfield, OH 45123	Michelle Davis, RT
Highland District Hospital	937-393-6126	1275 North High St. Hillsboro, OH 45113	Mandy Holland, RT Ashley Cline, RT
Southern Ohio Medical Center	740-356-8117	1805 27 th Street Portsmouth, OH 45662	Justin Lower, RT Matt Malone, RT
*SOMC Urgent Care	740-356-7319	1248 Kinney's Ln Portsmouth, OH 45662	Robbie Rase, RT
*SOMC Urgent Care- Wheelersburg	740-574-9090	8770 River Road Wheelersburg, OH 45694	Kayla Donini, RT
VA Medical Center - Chillicothe	740-773-1141 Ext. 7739	17273 State Route 104 Chillicothe, OH 45601	Heather Needs, RT
Kings Daughters Medical Center Ohio	740-991-4000	1902 Argone Rd Portsmouth, OH 45662	Amy Murnahan, RT
Mt. Orab- Mercy Urgent Care	397-444-4000	154 Health Partners Circle, Mt. Orab, OH 45154	JoBeth Rockey, RT Josh Kirschner, RT

* Denotes a rotation of the main campus clinical site.

College of Professional Studies
Department of Allied Health
Radiologic Technology Program

Purpose and Mission Allied Health Department

The purpose of this group composed of chairperson and faculty is to carry out the mission of the Department of Allied Health Sciences, consistent with the mission of Shawnee State University. This group will provide a forum to promote the programs and students of said department and allow for productive discussion within the group. The group will educate competent health professionals, provide leadership in the respective allied health science professions, add to the knowledge bank of the allied health science groups and promote life-long learning.

Mission of the Radiologic Technology Program

The Radiologic Technology Program prepares students to be professional radiologic technologists who are life-long learners and responsible to the future of the radiology profession and technological advances.

Program Goals

1. Students will be clinically competent in the Radiologic Technology field.
2. Students will demonstrate effective communication skills.
3. Students will demonstrate critical thinking skills in Radiologic Technology situations.
4. Students will demonstrate professionalism in the Radiologic Technology field.

Student Learning Outcomes

- Students will demonstrate proper positioning skills in the laboratory setting.
- Students will demonstrate proper positioning skills in clinical situations.
- Students will demonstrate proper selection of technical factors.
- Students will utilize radiation protection.
- Students will demonstrate written communication skills.
- Students will demonstrate oral communication skills.
- Students will perform non-routine procedures effectively.
- Students will identify errors and seek corrections in radiographic images.
- Students will demonstrate the value of life-long learning by actively seeking additional certification or education and continuing to be active members in the field.
- Students will understand the importance of professional and ethical conduct in the clinical setting.
- Students will demonstrate professional and ethical conduct in the clinical setting.

The Program faculty is committed to the education and success of the students enrolled in this program. However, the faculty also recognizes that no commitment of the faculty will compensate for a lack of commitment by the students. A combined commitment by the faculty and the students will result in the development of graduates with the requisite skills, knowledge, and attitudes to serve as a valuable asset to the profession and to the patients under their care.

Safety Procedures Relating to A.I.D.S and Hepatitis B

College of Health Sciences Employees or Students Doing Health Care Work.

This procedure has been considered and adopted in accordance with the current consensus of the medical and scientific community that bloodborne diseases cannot be transmitted by casual body contact typical of the workplace. Should it ever appear that the implementation of this procedure presents a danger to our employees or students, the College reserves the right in the sole discretion of the College to make appropriate revisions. The risk of contracting Hepatitis B is greater than the risk of contracting AIDS. Therefore, recommendation for the control of hepatitis B infection will effectively prevent the spread of AIDS. All such recommendations are therefore incorporated herein.

1. The College of Health Sciences strongly recommends that students enrolled in Health Science Programs obtain adequate medical insurance coverage.
2. It is recommended, that Radiologic Technology students be vaccinated for hepatitis B prior to contact with blood or other potentially infectious substances. If after consultation a student refuses to obtain Hepatitis B vaccination, a form entitled "Hepatitis B Vaccination Declination" must be signed. (See Appendix B)
3. Sharp items (needles, scalpel, blades, and other sharp instruments) should be considered as potentially infective and be handled with extraordinary care to prevent accidental injuries.
4. Disposable syringes and needles, scalpel blades, and other sharp items should be placed in puncture resistant containers located as close as practical to the area in which they are used. To prevent needle stick injuries, needles should NOT be recapped, purposely broken, removed from disposable syringes, or otherwise manipulated by hand unless a one-handed technique is employed.
5. When the possibility of exposure to blood or other body fluids exists, Universal Precautions must be followed. The anticipated exposure may require gloves alone, as in handling items soiled with blood or other body fluids, or may also require gowns, masks, and eye covering when performing procedures or post-mortem examinations. Hands should be washed thoroughly and immediately if they accidentally become contaminated with blood. Any occupational exposure must be reported to an appropriate university representative and an incident report filed as soon as reasonably possible.
6. To minimize the need for emergency mouth-to-mouth resuscitation, mouth-pieces, resuscitation bags, or other ventilation devices should be located and available for use in areas where the need for resuscitation is predictable.
7. Pregnant employees or students engaged in health care are not known to be at greater risk than employees or students who are not pregnant. However, if an employee or student develops infection with the AIDS virus during pregnancy, an infant has an increased risk of infection by prenatal or perinatal transmission. Because of this risk, pregnant employees or students should be especially familiar with precautions for preventing the transmission or acquisition of the AIDS virus.

8. Employees or students engaged in health care who have been diagnosed as having AIDS (T4 count < 200 cells) who are not involved in invasive procedures (those in which the body is entered, e.g., by use of a tube, needle, device, etc.) need not be restricted from work unless they have some other illness for which any health care worker would be restricted.
9. For students engaged in health care who have AIDS, there is an increased danger from infection due to diseases they may come in contact with in class or at the work place. Students with AIDS, who have defective immunity, are at risk of acquiring or experiencing serious complications of such diseases. Of particular concern is the risk of severe infection following exposure to patients with infectious diseases that are easily transmitted if appropriate precautions are not taken (e.g., tuberculosis or chicken pox). Students with AIDS will be counseled about potential risk associated with exposure to or taking care of patients with transmissible infections and should continue to follow infection control procedures to minimize their risk of exposure to other infectious agents.
10. The student's physician in conjunction with the appropriate college officials will determine on an individual basis whether the student with AIDS can adequately and safely perform patient care duties.
11. Infected neurologically handicapped employees or students who cannot control bodily secretions and students who have uncovered oozing lesions will not be permitted to participate in health care services. The determination of whether an infected employee or student should be excluded from providing health care shall be made on a case-by-case basis by the employee's or student's physician and the appropriate college official.

Incident Report Form for Student Exposure to Blood or Other Potentially Infectious Material

Name _____ SSU I.D. Number _____

Time & Date of Exposure _____

Facility Where Exposure Occurred _____

Infection Control Officer _____ Fax No _____

Supervisor _____

1. Describe the circumstances under which you were exposed to human blood or other potentially infectious material.

2. Indicate the type of human blood or other potentially infectious material to which you were exposed. (Check those that apply.)

- ☐ Blood
- ☐ Semen
- ☐ Vaginal secretions
- ☐ Cerebrospinal fluid
- ☐ Synovial fluid
- ☐ Pleural fluid
- ☐ Saliva from dental procedures
- ☐ Other body fluid than those listed above that contained visible blood; specify: _____
- ☐ Unidentifiable body fluid
- ☐ Other body fluid. specify: _____

3. Indicate the route(s) of your exposure: (Check those that apply.)

- ☐ Parenteral, needlestick or cut exposure
- ☐ Mucous membrane exposure; splash to the eye, mouth or nose
- ☐ Prolonged or extensive skin exposure to blood or the above mentioned body fluids.

Was the skin chapped, abraded or afflicted with dermatitis?

4. If the Source Individual is known, provide as much information as possible, e.g. Name, Social Security number, Location, Attending Physician, etc.

Instructions: Notify the Dean, College of Professional Studies by telephone (740-351-3216 or 3378) and complete form and fax to 740-351-3354 or hand-deliver this incident report for immediately to the Dean, College of Professional Studies, Shawnee State University, 940 Second Street, Portsmouth, OH 45662.

Confidentiality Policy

As a Radiologic Technology student, you will come into possession of confidential demographic and medical information concerning patients and the services rendered to them at several medical centers. This information is provided to you only to facilitate your education. **You will not**, at any time during or after your education at Shawnee State, disclose any confidential information to any other person whatsoever, or permit any unauthorized person to examine or make copies of any medical reports or related documents with which you come in contact with while in the Radiologic Technology Program. This includes, but is not limited to social media and discussions with other students in the clinical and classroom setting.

All records and personal information about patients is **absolutely confidential**. It is **imperative** that students do not divulge information about patients to anyone, including the patient. If a student is questioned by a patient about his/her examination and/or results, the patient should be referred back to their physician. Only during case presentations, conferences, department reports, or other **controlled** situations is the patient information allowed to be discussed.

As a result of the *Health Insurance Portability and Accountability Act of 1996 (HIPAA)*, federal law mandates the confidentiality of health information. This act contains penalties for wrongful disclosure of individually identifiable health information. It is important that every health care provider, including radiologic technology students, understand the rules for release of patient health information and follow the policies established by their assigned clinical site for access and release of individually identifiable health information.

As a Radiologic Technology student, you will also see and/or hear about other health care professionals (Doctors, Nurses, Radiologic Technologists, etc.) and other hospitals. Information you see and/or hear regarding these professionals or hospital should also be kept confidential.

Upon investigation by the Radiologic Technology faculty, anyone found not to be in compliance with this policy will be **DISMISSED** immediately from the program. The individual will **NEVER** be eligible in the future for readmission to the Radiologic Technology Program.

Relationships with Patients

Students enrolled in this program are expected to consider their relationships with patients to be an essential element of the diagnosis and therapeutic process. Students should learn to consistently employ communication skills such as the use of open ended questions, clarification of meanings, and appropriate use of silence, empathy, summaries, and confrontations in order to enhance their effectiveness in discovering patient difficulties and to help patients cope with problems.

All patients have a right to expect courtesy, respect, and concern from students. Students should remember that illness can cause some individuals to make unreasonable demands or cause other difficulties. Self-acknowledgement of the student's negative feelings about certain patients is appropriate and desired, but students have a responsibility as professionals to remain in control of their feelings while in the presence or in earshot of patients. Students, by their manner, should try to instill confidence in themselves and in other members of the health care team, but never by attempting to bluff in areas beyond their confidence.

Failure to employ appropriate communication skills and patient relationships may result in disciplinary actions that may include, but is not limited to, incident reporting or dismissal from the radiology program.

(Taken From: **Evaluating Clinical Competence in the Health Professions**, by Morgan and Irby, p. 75)

Relationships with Technologists and Clinical Instructors

It is important to understand that you will be working closely with your clinical instructor(s) and other technologists at the clinical sites. It is also imperative that you maintain a professional relationship with the technologists and clinical instructor. Faculty of the program discourage social media connections between you and the technologists (CI) as well as socializing outside clinical time. Please remember to maintain a professional relationship at all times.

Certification and Licensure

Students who complete the Associate of Applied Science in Radiologic Technology and all clinical requirements at Shawnee State University will be eligible for certification by the American Registry of Radiologic Technologists (ARRT). The examination registers the individual as a radiographer in the United States.

The ARRT's mission:

To promote high standards of patient care by recognizing qualified individuals in medical imaging, interventional procedures, and radiation therapy.

In support of this mission, we:

- Adopt and uphold standards for educational preparation for entry into the profession
- Adopt and uphold standards of professional behavior consistent with the level of responsibility required by professional practice
- Develop and administer examinations that assess the knowledge and skills underlying the intelligent performance of the tasks typically required by professional practice in the discipline

In addition to offering initial recognition, ARRT provides a way to recognize individuals who continue to demonstrate their qualifications by adhering to the standards of professional behavior and by complying with continuing education requirements.

ARRT. (2018). Mission. Retrieved from: <https://www.arrt.org/earn-arrt-credentials/credential-options/radiography>

Licensing for radiographers after completion of the program and ARRT examination is the responsibility of the graduate student. Licensing is observed by the state in which the radiographer chooses to work.

The State of Ohio requires that any individual who performs radiologic procedures on humans must hold a valid Ohio radiologic license, according to the Ohio Revised Code. Radiologic licenses are issued for the following categories: Radiographer, Nuclear Medicine Technologist, Radiation Therapist and General X-ray Machine Operator (GXMO).

The Radiologic Licensure program ensures standards of knowledge and skill for operators who apply radiation to humans for diagnostic or therapeutic purposes. Through continuous enforcement, initiative and action, the program assures medical patients receive quality diagnostic imaging and services.

For more information, please visit the webpage at: www.odh.ohio.gov

ODH. (2018). Radiologic Licensure. Retrieved from: <https://www.odh.ohio.gov/odhprograms/rp/xray/lic/rlic1.aspx>

ARRT Code of Ethics

The ARRT has a strict standards of ethics for any individual who plans to apply for the registering examination. The Standard of Ethics shall serve as a guide by which Certificate Holders and Candidates may evaluate their professional conduct as it relates to patients, healthcare consumers, employers, colleagues, and other members of the healthcare team. The Code of Ethics is intended to assist Certificate Holders and Candidates in maintaining a high level of ethical conduct and in providing for the protection, safety, and comfort of patients. The Code of Ethics is aspirational.

1. The radiologic technologist acts in a professional manner, responds to patient needs, and supports colleagues and associates in providing quality patient care.
2. The radiologic technologist acts to advance the principal objective of the profession to provide services to humanity with full respect for the dignity of mankind.
3. The radiologic technologist delivers patient care and service unrestricted by the concerns of personal attributes or the nature of the disease or illness, and without discrimination on the basis of race, color, creed, religion, national origin, sex, marital status, status with regard to public assistance, familial status, disability, sexual orientation, gender identity, veteran status, age, or any other legally protected basis.
4. The radiologic technologist practices technology founded upon theoretical knowledge and concepts, uses equipment and accessories consistent with the purposes for which they were designed, and employs procedures and techniques appropriately.
5. The radiologic technologist assesses situations; exercises care, discretion, and judgment; assumes responsibility for professional decisions; and acts in the best interest of the patient.
6. The radiologic technologist acts as an agent through observation and communication to obtain pertinent information for the physician to aid in the diagnosis and treatment of the patient and recognizes that interpretation and diagnosis are outside the scope of practice for the profession.
7. The radiologic technologist uses equipment and accessories, employs techniques and procedures, performs services in accordance with an accepted standard of practice, and demonstrates expertise in minimizing radiation exposure to the patient, self, and other members of the healthcare team. The radiologic technologist practices ethical conduct appropriate to the profession and protects the patient's right to quality radiologic technology care.
8. The radiologic technologist practices ethical conduct appropriate to the profession and protects the patient's right to quality radiologic technology care.

ARRT Code of Ethics (Continued)

9. The radiologic technologist respects confidences entrusted in the course of professional practice, respects the patient's right to privacy, and reveals confidential information only as required by law or to protect the welfare of the individual or the community.
10. The radiologic technologist continually strives to improve knowledge and skills by participating in continuing education and professional activities, sharing knowledge with colleagues, and investigating new aspects of professional practice.
11. The radiologic technologist refrains from the use of illegal drugs and/or any legally controlled substances which result in impairment of professional judgment and/or ability to practice radiologic technology with reasonable skill and safety to patients.

Any student enrolled in the Radiologic Technology Program must receive a background check before clinical assignments are to begin.

Any student who has or accumulates during program any of the following must submit a pre-application for review to the ARRT:

- (i) conviction of a crime, including, but not limited to, a felony, a gross misdemeanor, or a misdemeanor, with the sole exception of speeding and parking violations. All alcohol and/or drug related violations must be reported; and/or
- (ii) criminal proceeding where a finding or verdict of guilt is made or returned but the adjudication of guilt is either withheld, deferred, or not entered or the sentence is suspended or stayed; or a criminal proceeding where the individual enters an Alford plea, a plea of guilty or nolo contendere (no contest); or where the individual enters into a pre-trial diversion activity; or
- (iii) military courts-martial related to any offense identified in these Rules of Ethics.

If a student is concerned about ARRT eligibility, it is the responsibility of the student to contact the ARRT for further information before completion of the program.

ARRT. (2018). Standards of Ethics. Retrieved from: https://www.arrt.org/docs/default-source/governing-documents/arrt-standards-of-ethics.pdf?sfvrsn=c79e02fc_16

More information about the credentialing process, processing of applying for the ARRT examination, and the pre-application process for ethics review can be found on the ARRTs webpage: www.arrt.org

Post-Processing Policy

The Radiologic Technology Program is in agreement with the American Society of Radiologic Technologists about the use of post-processing shuttering, cropping and electronic masking in radiographic procedures.

The ASRT's opinion is as follows:

1. It is within the scope of practice of a radiologic technologist to determine and apply appropriate pre-exposure collimation to individual projections of exams to comply with the principle of as low as reasonably achievable (ALARA). Post-exposure shuttering, cropping, electronic collimation or electronic masking to eliminate the visibility of large regions of brightness are acceptable, where automatic processing fails to do so.

2. It is outside of the scope of practice of a radiologic technologist to use post-exposure shuttering, cropping, electronic collimation or electronic masking to eliminate any anatomical information. This information is a part of the patient's permanent medical record, and should therefore be presented to the licensed practitioner to determine whether the exposed anatomy obtained on any image is significant or of diagnostic value.

3. It is outside the scope of practice of a radiologic technologist to use post-exposure shuttering, cropping, electronic collimation or electronic masking to duplicate and use any acquired image for more than one prescribed view or projection on any exam. Facilities acquiring digital images are legally required to retain information in the Digital Imaging and Communications in Medicine (DICOM) information of each image that identifies the selected view or projection at the time of image acquisition. Using the same acquired image to represent two different prescribed views or projections is a falsification of the information in the patient medical record and imaging study made available to the licensed practitioner.

Definitions:

Cropping: the process of selecting and removing a portion of the image.

Electronic masking: electronic collimation or cropping of the digital radiographic image that occurs during post processing of the acquired image and does not alter the size of the irradiated field.

Processing: manipulation of the raw data just after acquisition.

Shuttering: a post processing technique that may be used to eliminate ambient light around an image for the sole purpose of improving the quality of the displayed image. It should not be used as a substitute for insufficient collimation of the irradiated field.

Students using cropping, electronic masking and shuttering in the clinical setting will be given a critical incident report and can lead to automatic dismissal from the program.

ASRT. (2018). The Practice Standards for Medical Imaging and Radiation Therapy. Retrieved from: https://www.asrt.org/docs/default-source/practice-standards-published/ps_aos_postexposureshutteringinradiography.pdf?sfvrsn=9

Accreditation



Shawnee State University's Radiologic Technology Program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT). The Radiologic Technology Program has adopted and upholds the STANDARDS by the JRCERT that direct assessment and student outcomes. The STANDARDS require a program to articulate its purposes; to demonstrate that it has adequate human, financial, and physical resources effectively organized for the accomplishment of its purposes; to document its effectiveness in accomplishing its purposes; and to provide assurance that it can continue to meet accreditation standards. Students can view the entire STANDARDS that are posted in the Radiologic Technology laboratory.

The six standards:

Standard One: Integrity

Standard Two: Resources

Standard Three: Curriculum and Academic Practices

Standard Four: Health and Safety

Standard Five: Assessment

Standard Six: Institutional/Programmatic Data

For more information about accreditation and the JRCERT please visit the website at <https://www.jrcert.org/>

JRCERT
20 N. Wacker Drive, Suite 2850
Chicago, IL 60606-3182
(312) 704-5300.
mail@jrcert.org

JRCERT Non-Compliance Procedure

The student has the right to assume that the program operates in compliance with the **STANDARDS**. If the student feels that the program is not in compliance, they should first seek to resolve the concern by speaking to the instructor, clinical instructor, clinical coordinator or program director. If the student is unable to resolve the problem, a written statement outlining the concerns should be presented to the allied department chair. The allied health department chair will respond to the student within five working days. If the student feels that resolution has not been accomplished the matter will be turned over to the Dean of the College of Professional Studies. The Formal Procedures for Filing a Complaint will be followed as describe in the current Shawnee State University Student Handbook. If the student still does not feel the matter has been resolved, they have the right to contact the JRCERT. A good faith effort by all parties should be made in an effort to solve the conflict before the JRCERT is contacted. This is simply good policy and the JRCERT would expect that this has been done before it is contacted.

In the event the program has allegations of non-compliance with the JRCERT **STANDARDS** the program director will maintain records of such complaints and their resolution.

Drug Testing

The Radiologic Technology Program at Shawnee State University requires all students to have annual drug testing. This consists of a **ten-panel (mimumum)** drug test and students are responsible for the cost of the test. The initial drug test cost is included with your CastleBranch registration fee. (See CastleBranch Policy). In addition, random drug testing may be required of any student who program faculty have suspicion or reason to believe may be utilizing recreational or illicit drugs. If a drug test is required of any suspected student, it must be obtained and results reported to program faculty within three (3) days. This will be at the student's expense. Failure of the drug test, or failure to comply or obtain the test, may result in dismissal from the program. The Radiologic Technology Program will follow the University's Drug-Free Campus and Workplace Policy, please see <http://www.shawnee.edu/leadership/policies/media/policy-506r.pdf> for further information.

Drug test results will be uploaded to Castlebranch, or must be emailed or faxed to program faculty or faxed to the department secretary at (740) 351-3041 with attention to the Radiologic Technology program faculty.

If a student feels they may have issues with substance abuse, or fails a drug test, they will be referred to the University Campus Counseling Office. This is a free service to students who require counseling assistance. The Campus Counseling Office is located in Hatcher Hall, 1001 4th Street, and may be reached at 740-351-3551.

If a student does not comply with the drug test or if the drug test is positive, the student will not be allowed to attend clinic and therefore, cannot complete the program in a timely manner. The student can reapply to the program the following year with proof of a negative drug test.

Drug-Free Campus

Shawnee State University is committed to maintaining a workplace and educational environment free of illegal drugs. Recognizing that illegal drug use poses health and safety hazards to employees, students, and to the community at large, the university prohibits the possession or use of illegal drugs on all university property and at other locations where the public, students, or employees of the university are conducting university business or participating in any sponsored activities.

It is the responsibility of each campus visitor, faculty member, staff member, and student to adhere to this policy. If a violation of this policy occurs, support programs will be made available where appropriate. Disciplinary action may be taken, up to and including termination or dismissal from the University, in accordance with the applicable university policy, collective bargaining agreement or student conduct code, and possible criminal prosecution.

In accordance with the Drug Free Workplace Act of 1988 and the Drug Free Schools and Communities Act, the university will promote substance-abuse awareness that may include the following:

- Resource information (booklets, brochures, pamphlets, etc.) regarding health and safety concerns from substance abuse and information regarding the availability of and/or referral to community-based, approved substance abuse counseling and rehabilitation services are available through the Department of Counseling and Health Services for students
- Education concerning substance abuse, especially of alcohol and drugs, will be provided periodically on campus. The university community is encouraged to take advantage of these opportunities to become more aware of the effects of substance abuse.

Non-Discrimination/Sexual Harassment Policy

Shawnee State University is committed to having an educational and working environment for students and employees that is without unlawful or prohibited discrimination and harassment.

This policy serves to ensure that there are University structures and processes in place that prohibit discrimination against any individual because of race, color, genetic information, religion, age, disability, national origin, ancestry, sex, pregnancy, sexual orientation, gender identity, veteran status or military status.

The University will have processes and resources in place to protect students, employees and visitors from prohibited discrimination and harassment and to ensure the following:

- Compliance with applicable state and federal laws that address discrimination and harassment;
- Complaints of discrimination and harassment are adequately reviewed and resolved; and
- Training and education, designed to prevent discrimination and harassment, is conducted throughout the University.

For full policy details please visit: <http://shawnee.edu/leadership/policies/media/policy-501rev.pdf>

Social Networking

The United States Constitution gives everyone freedom of speech. However, you will be bound by Federal Regulations in the clinical environment regarding the discussion of patient, hospital, and hospital personnel private communications (HIPPA). Professional ethics is outlined by the ARRT Code of Ethics (see page 5 of this handbook).

Students should avoid discussion of problems, issues, or negative experiences encountered on SSU campus and in the clinical setting on any social network or blog. Students will be given multiple opportunities during the program to express their feelings regarding their classroom, laboratory, and clinical experiences. If a student feels they have been treated unfairly they may use a variety of resources to address their displeasure. Blogging and social networks are not the best way to handle any displeasure you may feel.

Be respectful when posting comments on the internet. Assume the people you are discussing, including other students, faculty, co-workers, hospital personnel and potential future employers are reading your comments and blogs. It is the responsibility of the student to understand that if a post or blog entry is deemed inappropriate by a clinical affiliate, that student may be required to leave the rotation early and will only be placed in another rotation, if available. If no other rotation is available, the student will be dismissed from the program. An incident (critical) report may be filed at the clinical instructor or the faculty's discretion.

It is discouraged that students are "friends" or "follow" technologists or present/past clinical instructors while the student is enrolled in the Radiologic Technology Program on any social media platform. This also applies to program faculty or adjunct faculty.

Grievance or Complaint Procedure-Addendum

A student may encounter a problem or concern with a course, instructor or a situation. In those cases, where no University policy addresses the situation, the following procedure will be used.

The grievance/complaint process:

1. Discuss your situation/concern with your classroom or clinical instructor to try to resolve the issue.
2. If your situation/concern is not resolved, you should within 5 days submit your concern in writing to the clinical coordinator if the situation is related to clinical or the Program Director if the situation is related to the classroom. The clinical coordinator or Program Director will have 5 days to notify you of the results.
3. If you are unsatisfied with the clinical coordinator's decision you have 5 days to appeal in writing to the Program Director. The Program Director will have 5 days to notify you of the results.
4. If you are unsatisfied with the Program Director's decision, you have 5 days to appeal in writing to the Chair of the College of Professional Studies (or designee). The Chair will notify you of the results.
5. If you are unsatisfied with the Chair's decision, you have 5 days to appeal in writing to the Dean of the College of Professional Studies. The Dean will notify you of the results.
6. If you are unsatisfied with the Dean's decision, you have 5 days to appeal in writing to the Provost (or designee). The provost will notify you of the results.
7. If you are unsatisfied with the Provost's decision, you have may file a grievance with the JRCERT.

Curriculum

The radiologic technology curriculum prepares the graduate as a radiographer. The radiographer works under the supervision of a medical radiologist or physician in hospital radiology departments, clinics, commercial x-ray laboratories, or doctors' offices. The responsibility of the radiographer is to produce a radiographic (x-ray) image of the highest diagnostic quality of any designated area of the human body. It is from this image that the radiologist makes his or her interpretations.

Curriculum for this program covers six semesters. The first three academic semesters are designed to provide the students with mathematics, basic science, general education courses, supporting technical courses, clinical education, and specialized courses in radiography. The second and third semesters of the first year will incorporate a clinical component with the academic requirements. The second year of the program consists of additional clinical education scheduled in affiliated hospitals along with advanced radiologic technology courses.

Experience in the radiology departments of the affiliated hospitals provides opportunity for the practical application of knowledge learned in the classroom. This experience in the hospital is a vital part of the program, since it enables the student to assist in the handling of sick and injured patients as they undergo a wide variety of radiographic examinations.

Upon satisfactory completion of the course requirements, the graduate receives the Associate of Applied Science degree and is eligible to apply for examination by the American Registry of Radiologic Technologists.

Radiologic Technology 2-Year Curriculum

Student Name _____

Date _____

	Course #	First Semester - Summer	Lecture	Radiology Lab/Clinic (hours per week)	Credit
	RDLT 1101	Introduction to Radiography & Patient Care	3		3
	RDLT 1120	Radiographic Procedures I	3	2	4
		**Second Semester – Fall			
	UNIV 1100	First Year Experience	1		1
	RDLT 1221	Radiographic Procedures II	3	2	4
	RDLT 1240	Imaging Science and Equipment	3		3
	RDLT 1290	Clinical Experience 1		14	2
	BIOL 1130	Principles of Anatomy and Physiology I	3		4
	MATH 1200/STAT 1150	College Algebra/Principles of Statistics	3		3
		Third Semester – Spring			
	RDLT 1322	Radiographic Procedures III	3		3
	RDLT 1341	Image Production and Processing	3	2	4
	RDLT 1390	Clinical Experience 2		14	2
	BIOL 1131	Principles of Anatomy and Physiology II	3		4
	ENGL 1101 or 1102	Discourse and Composition	3		3
		Fourth Semester – Summer			
	RDLT 2190	Clinical Experience 3		32	3
	RDLT 2142	Image Analysis	1		1
		Fifth Semester – Fall			
	RDLT 2251	Radiobiology & Radiation Protection	2		2
	RDLT 2260	Imaging Technology	3		3
	RDLT 2290	Clinical Experience 4		21	3
	ENGL 1105	Composition and Argumentation	3		3
	AHNR 1102/BUHE 3000	Medical Terminology/Medical Terminology for Health Managers	2/3		2/3
		Sixth Semester – Spring			
	RDLT 2361	Imaging Seminar	3		3
	RDLT 2390	Clinical Experience 5		21	3
	BIOL 3635	Sectional Anatomy	3		3
	PSYC 1101	Introduction to Psychology	3		3
	COMM 1103	Speech	3		3

Course Descriptions

RDLT 1101 Introduction to Radiography and Patient Care (3)

This course acquaints the student with the field of medical imaging and provides knowledge and basic skills necessary for care of the patient. Topics will include: historical development of radiography, orientation to the health care delivery system, medical terminology, culture diversity, medical ethics, medicolegal considerations, communication, patient/technologist interactions, patient transfer and safety issues, patient assessment and infection control procedures. *Summer pre-requisite: admission to the Radiologic Technology Program.*

RDLT 1120 Radiographic Procedures I (4)

This course introduces the student to basic x-ray production, image production, radiation protection and radiographic positioning terminology. The areas of the chest, abdomen and upper limb will be covered in terms of anatomy, positioning, pathology and image evaluation. *Summer pre-requisite: admission to the Radiologic Technology Program.*

RDLT 1221 Radiographic Procedures II (4)

This course will provide the student with the knowledge to perform radiographic procedures of the lower limb, spine, bony thorax, skull, facial bones and paranasal sinuses. The procedures will be covered in terms of anatomy, positioning, pathology and image evaluation. *Fall pre-requisite: RDLT-1101 & 1120*

RDLT 1240 Imaging Science and Equipment (3)

The course will provide the student with the knowledge of the physics and equipment necessary for x-ray production. Topics include atomic structure, characteristics of radiation, electrodynamics, magnetism, electromagnetism, x-ray tube, x-ray circuits, automatic exposure control, electronic imaging and x-ray interactions with matter. *Fall pre-requisite: RDLT-1101 & 1120*

RDLT 1290 Clinical Experience 1 (2)

The first clinical course will serve as an orientation to the clinical environment including rotations through the office, transportation of patients, use of the radiographic equipment and image processing. The student will apply radiologic technology principles with emphasis on the chest, abdomen and extremity examinations at the imaging departments of affiliate hospitals. *Fall pre-requisite: RDLT 1101 and 1120*

RDLT 1322 Radiographic Procedures III (3)

The final procedures course will cover pharmacology, contrast media, and the examinations needing oral or intravenous contrast media, venipuncture technique, radiographic practices for surgery, pediatric and geriatric radiography, mobile radiography, trauma radiography, mammography, neurological and cardiovascular procedures and other specialized areas of medical imaging. *Spring pre-requisite: RDLT-1221*

RDLT 1390 Clinical Experience 2 (2)

This is course is a continuation of RDLT 1190 with practical application of radiologic technology principles and techniques with emphasis on examinations of the lower extremity, spine, bony thorax, skull, facial bones and paranasal sinuses at the imaging departments of affiliate hospitals. *Spring pre-requisite: RDLT 1290, 1240 and 1221*

RDLT 1341 Image Production and Processing (4)

This course provides the student with the knowledge of factors that govern and influence the production and recording of radiographic images. Film and electronic image processing will be presented along with information on the proper utilization of accessory devices. Concentration is on overall image quality, as well as factors affecting patient exposure. Laboratory activities are used to demonstrate application of theory. *Spring pre-requisite: RDLT-1240*

RDLT 2142 Image Analysis (1)

This course provides students with a systemic method for analyzing radiographic images. *Summer pre-requisite: RDLT 1322, 1390 & 1341*

RDLT 2190 Clinical Experience 3 (3)

Continuation of RDLT 1290 with practical application of radiologic technology principles, positioning, and techniques with emphasis on oral and vascular administration of contrast procedures, mobile and surgical radiography, pediatric and geriatric radiography, trauma radiography, and mammography. Course includes on-line quizzes over previous course material. *Summer pre-requisite: RDLT 1390, 1341 and 1322*

RDLT 2251 Radiobiology and Radiation Protection (2)

This course provides the student with an overview of the interactions of radiation with the human body and principles of radiation protection. Areas to be explored include radiosensitivity, radiation dose response relationships, early and late radiation effects, and health physics. Radiation protection responsibilities of the radiographer for patients, personnel and the public are emphasized. *Fall pre-requisite: RDLT 2142 & 2190*

RDLT 2260 Imaging Technology (3)

This course will examine various imaging topics and specialized imaging modalities. Areas to be examined include; quality control, fluoroscopy, image intensifiers, conventional tomography, electronic imaging, computed tomography, magnetic resonance imaging, ultrasound, and other specialized areas of imaging. *Fall pre-requisite: RDLT 2142 & 2190*

RDLT 2290 Clinical Experience 4 (3)

Continuation of RDLT 2190 with emphasis on practical application of radiologic technology principles, positioning, and techniques of the gastrointestinal tract, portable radiography, neurologic and cardiovascular procedures and other specialized areas of medical imaging. *Fall pre-requisite: RDLT 2190 and 2142*

RDLT 2361 Imaging Seminar (3)

Designed as a self-assessment of the independent cognitive areas utilized in the clinical situation. *Spring; preq. RDLT 2251, 2260 and 2290*

RDLT 2390 Clinical Experience 5 (3)

Continuation of RDLT 2290 with emphasis on practical application of radiologic technology principles, positioning, and techniques involving headwork, surgery, advanced radiographic examinations, and specialized areas of medical imaging. Course includes on-line film critique sessions. *Spring pre-requisite: RDLT 2290, 2260 and 2251.*

Advising Policy

1. A representative of the Student Success Center will advise pre-Radiologic Technology students. This advising will include:
 - a) Minimum criteria for admissions to the Radiologic Technology Program.
 - b) A brief overview of the selection process of the program.
 - c) Recommending courses that will:
 - Meet the minimum admission criteria.
 - Be required in the Radiologic Technology curriculum.
 - Increase the student's chances of being accepted into the Radiologic Technology Program.
 - Meet the requirements of other Allied Health programs.
2. The Program Director and/or Faculty of the Radiologic Technology Program advise students after they are accepted into the program. The Program Faculty meets with each accepted student during the summer semester to:
 - a) Print out a degree audit if one has not already been done.
 - b) Review the audit and any other courses the student may have transferred from other institutions.
 - c) Develop an academic plan.
 - d) Answer any questions about program requirements.

The Program Director and/or Faculty will meet each semester with students to review and approve their schedule. Periodically, the Program Director and/or Faculty and student will review the degree audit to track the student's progress. The Program Director and/or Faculty will note any concerns in Adviso and the plan and each will initial it after the review. Students will not be cleared for registration until an academic advising session has been complete. If a student fails to follow, the plan agreed upon by the advisor, this might delay the progression towards graduation.

3. The Program's Clinical Coordinator serves as the primary adviser to students regarding the clinical education portion of the program. The Coordinator meets with the students at least each semester to review and inform them of their progress in the competency based clinical system.
4. Ultimately, it is the student's responsibility to make sure they are completing all program and graduation requirements. If a student has not met the requirements set by the program, it is the student's responsibility to inform the Program Director.

Academic Requirements

It is necessary for all students enrolled in the Radiologic Technology Program to meet specific minimum academic requirements in order to remain enrolled in the program. These minimum Academic Requirements are outlined below.

Courses with “RDLT” prefix are arranged in a progressive sequence and will not be offered out of sequence without the Program Director’s approval.

In addition to the Academic Requirements specified below, all students must meet eligibility requirements adopted by Shawnee State University for enrollment.

For a student to remain in good standing in the Radiologic Technology Program, the following three (3) conditions **must** be met.

1. The student must not receive a grade of “F” in any of the required courses listed in the six (6) semester sequence.
2. The student must not receive a grade below a “C” in any of the courses with the RDLT prefix that are required to complete the program. (See the course curriculum.)
3. The student must earn an overall grade point average of 2.5 by the end of the second semester of the program and maintain it throughout the remainder of the program.

If any one of these three conditions is not met, the student will be academically dismissed from the Radiologic Technology Program.

Grading Scale

The scale is followed for every course in the curriculum unless stated in the syllabus.

Grading Evaluation

94% = A	70% = C-
90% = A-	<70% = D
87% = B+	<60% = F
83% = B	
80% = B-	
77% = C+	
*75% = C	

*Student must receive a 75% or better to continue in the Radiologic Technology Program

Continuation Policy

Students must earn a minimum grade of a "C" in each course to continue the Radiology Program. If a student does not maintain a "C," the student will be dismissed from the Radiologic Technology Program and have one year to re-enter the course(s). Please see re-admission policy. All laboratory check-off requirements are a pass/fail completion. The student has two times to pass laboratory check-offs. If the student cannot successfully pass the laboratory check-off, the student will be dismissed from the program and will receive the highest grade of a "C-" in the didactic course associated with the laboratory check-off.

Academic Misconduct

General Principles

Honesty and truth are recognized as fundamental principles for academic pursuits. Shawnee State University expects that both faculty and students will honor these principles, and in so doing, will protect the integrity of academic work and student grades. Academic dishonesty defrauds all those who depend upon the integrity of the University, its courses and its degrees. Matters involving academic misconduct are initially reviewed by the faculty member in whose course the alleged misconduct occurred. The Provost's Office is responsible for maintaining an academic misconduct log of students found responsible for academic misconduct. The Provost, academic deans, Dean of Students, Vice President for Student Affairs, and other individuals designated by the Provost have authorized access to the academic misconduct log.

Definition of Academic Misconduct

Academic misconduct refers to any conduct that evidences deceit, dishonesty or fraud to obtain an unfair advantage over other students, or violation of the academic standards and policies of the University. Academic misconduct includes but is not limited to:

1. Plagiarizing;
2. Violation of course rules as contained in the course syllabus or other information provided to the student;
3. Providing or receiving information through whatever source during exams and quizzes or providing or using unauthorized assistance in the laboratory, at the computer terminal, or on fieldwork;
4. Using any device, including electronic devices not permitted by the instructor, in aid of an the exam;
5. Serving as, or enlisting the assistance of, a substitute for a student in the writing of papers, assignments or taking of examinations;
6. Alteration of grades or marks by the student in an effort to change the earned grade or credit;
7. Turning in the same work to more than one instructor without informing the instructors involved; and
8. Violation of proprietary agreements.

Shawnee State University Code of Student Conduct is located online at: <http://www.shawnee.edu/offices/dean-students/media/student-conduct-code.pdf>

Guidelines for Appealing a Dismissal from an Allied Health Sciences Program*

Each of the programs within the Allied Health Sciences Department has minimum academic and clinical performance standards that permit a student to continue in the program. Failure to meet these standards may result in dismissal from the program. Information concerning the performance standards is available in this catalog, the student handbook for the individual program, and from the department's chairperson.

Dismissal from Allied Health Sciences programs may be appealed by the following process.

- Within three working days following a dismissal notification a request in writing to appeal the dismissal must be made to the department chairperson. The chairperson will notify the student of the result of this appeal within three working days following the meeting.
- The chairperson's decision may be appealed by submitting a written request to the chairperson to arrange for a review by the dean (or designee), the chairperson (or designee), and the provost (or designee). The student will be informed of the result of this review within two working days following that meeting.

Criteria to be used in ruling on a dismissal appeal include, but not limited to, past academic achievement, the student's rationale for current grade status, and the prediction of future performance in the program.

Dismissal from an Allied Health Sciences program is not the same as dismissal from the University. University dismissal policies are outlined in this catalog under the section titled "Academic Policies."

Form available in Appendix C

Procedure for Re-Admission

Readmission is a privilege, not a guarantee. Applying does not constitute an automatic readmission. The Radiologic Technology Program Admission Committee will act on all requests. The procedure for readmission is as follows:

1. A student who has been dismissed or has withdrawn from the Radiologic Technology Program may petition the Radiologic Technology Program Admissions Committee for readmission through the Program Director. Petition forms are available from the Program Director and/or Program Faculty.
2. Petitions must be submitted to the Program Director during the semester before the student desires readmission. Students have **one** year to apply following withdraw or dismissal from the program.
3. **ALL READMISSIONS ARE ON A SPACE AVAILABLE BASIS.** The determination of available space will be made by the program faculty. Students who have withdrawn in good standing, as determined by the committee, shall be given preference over dismissed students in the assigned available space.
4. Applicants will be notified in writing of the Committee's decision. Contingencies of readmission, if any, will be determined by the committee. Contingencies may include, but are not limited to, the requirement for the dismissed/withdrawn student to display readiness to re-enter the program (i.e. re-admittance testing.)
5. All incident reports obtained by the student before readmission will stand.
6. Student must sign agreement to abide by policies and procedures changes due to change in graduation class.

Student Support Services

Student Support Services is funded by the U.S. Department of Education and provides support services to first generation college students, low-income college students, and students with disabilities. Help is also provided through:

- Individual and group tutoring in Math and English.
- Assistance completing financial aid, scholarship, and loan applications.
- Career counseling and occupational information.
- Instructional materials and supplies available for loan.
- Graduate school counseling and campus visitations.
- Study groups and informal support networks.
- Workshops on personal and academic issues.
- Cultural activities.

For students who have a specific physical, psychiatric, or learning disability and require accommodations, please notify Jim Weaver, the Accessibility Services Coordinator for assistance. By law, it is your responsibility to provide documentation of your disability to the Office of Disability Services, located in Hatcher Hall (Ph) 351-3594, *PRIOR* to receiving services.

Library Services

Clark Memorial Library on the campus of Shawnee State University provides an excellent source of information for writing assignments and research projects for students in the Radiologic Technology Program.

The Library hours of operation can be accessed through the Clark Memorial Library home page in the Shawnee State web pages and are also posted at the library. The hours may vary from one semester to another, during breaks between semesters, and within a specific semester the hours of operation may change (e.g. during finals week the library is usually open later).

The Library provides a variety of books on Radiology for health science students. The periodical section of the library contains the following medical journals directly related to the field of radiology: Radiology, Radiology Technology, Applied Radiology, Seminars in Radiologic Technology, and The Canadian Journal of Medical Radiation Technology.

The Library provides access to additional books and periodicals through their connection to OhioLINK. This service allows students and faculty from one university or college in Ohio to access books and periodicals at other educational facilities throughout Ohio as well at the State Library of Ohio. Students may borrow books from other libraries and copies of specific periodical articles are provided to students for a nominal fee. Students wishing to use this service should allow approximately one (1) week for these publications to arrive at Clark Memorial Library and be process for their use.

The Library provides access to a variety of research databases as well as access to the World Wide Web from their computers. Many of the research databases are full text and some of the research databases are specific to the healthcare fields such as CancerLIT, CINAHL, Health Reference Center, HealthSTAR, MDX Health Digest, and MEDLINE.

Students enrolled at Shawnee State University are given access codes that allow them access to the Library and other University web services from home by logging on to the Shawnee State University Home Page and entering their access code.

The Radiologic Technology Program Faculty assign research projects and internet assignments throughout the six academic semesters of the program. Use of the services provided by Clark Memorial Library is encouraged by the faculty for these assignments.

Behavior Expectations for Program Requirements

Professionalism is an expectation in the Radiologic Technology Program. Students in the classroom or clinical setting are expected to be professional in their behavior. Students are expected to be present and punctual in class and in the clinical experience. Additionally, students are expected to be actively engaged in the material presented and contribute to the learning environment. The program will uphold policies and procedures of the university's Student Code of Conduct that can be read in full at <http://www.shawnee.edu/offices/dean-students/media/student-conduct-code.pdf>. Any student in violation of the expected behavior will require initiation of the disciplinary sanctions listed in the Student Code of Conduct and may end in dismissal from the Radiologic Technology Program.

Expected behaviors include:

- Professionalism
- Attendance
- Punctuality
- Active engagement
- Respectful communication
- Responsibility
- Stress management
- Critical thinking
- Effective communication skills
- Effective use of time in classroom and clinical setting
- Proper hygiene
- Appropriate attire/uniform
- Relationships with patients/patient care skills
- Confidentiality/respect for others

Background Checks

The Radiologic Technology Program at Shawnee State University requires students to obtain a federal and state background check before beginning their clinical experience. Each student is responsible for payment of background checks. It is recommended this be obtained through Shawnee State University's security office. The approximate cost is \$56.00. The office performs background checks Monday-Friday from 8-10am and by appointment.

CastleBranch Immunization Tracking

Shawnee State University Radiologic Technology Program uses CastleBranch to manage immunization tracking and drug testing for all students in the program. Students will upload their required clinical documentation into the system for tracking and management. This information includes, but not limited to, all immunization records, TB skin test, physicals, and other documentation and information deemed necessary by program faculty.

Students are responsible for a onetime payment of an estimated \$81.00 to initialize the program. This cost includes the first drug test, and the management of all uploaded information into the system. There will be an additional cost of \$40.00 for the second drug test during the students' second year of the program. Additional costs may be incurred if additional testing is required. Students will continue to have access to the site after completion of the program.

Students are responsible for continuous monitoring of the CastleBranch site to ensure documents are not expired. Failure to respond to notifications from CastleBranch and/or program faculty may result in the student being removed from clinic until documents are up to date.

Attendance Policy

Students are expected to be in attendance and punctual for all didactic and clinical requirements. Excessive absences or frequent tardiness in the didactic or laboratory setting will affect the student's grade. After three (3) absences or tardies, 2% points will be deducted from the grade and each additional absence will be an additional 2%.

Clinical Attendance Policy-Addendum

The Radiologic Technology Program at Shawnee State University encompasses six (6) semesters at the University. The clinical education component of the program encompasses five (5) semesters.

Students are expected to attend all clinical assignments and should arrive on time to the clinical site and be prepared to start their clinical training on time. Students are expected to attend during regularly scheduled classes or clinical time. Students will follow the University calendar regarding vacations. The University normally schedules a fall break in October, Thanksgiving Holiday, and a week in March for Spring Break. However, the breaks are subject to change. The student is not required to attend clinicals during University breaks. The University observes the following holidays during the semesters: Martin Luther King, Jr. Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, and Thanksgiving (subject to change).

The following procedures must be followed in event of an unplanned absence or tardy from your clinical assignment.

1. The Radiology Program Clinical Coordinator and Clinical Instructors of the affiliate hospitals must be notified **prior** to any absence due to tardiness or illness. Notification consists of a telephone call to the affiliate radiology department prior to the student's scheduled time of arrival and also the clinical coordinator at the University by either a phone call or e-mail. The student must contact the Clinical Instructor (or Chief Technologist and/or Staff Technologist if the Clinical Instructor is unavailable) and state the reason for the absence or tardiness. Failure to call in will result in an unexcused absence. Absences not due to illness will also be considered as unexcused absence.

Unexcused absences are not tolerated. The receiving of one unexcused absence will lower the final clinical grade by five (5) percentage points. Two unexcused absences will lower the final clinical grade by ten (10) percentage points. Each day of unexcused absence will be considered one absence.

Three (3) excused absences during the semester will result in the lowering of the student's final clinical grade by five (5) percentage points. Example: A student misses three (3) consecutive clinical days with the flu, the three (3) consecutive day will be considered as one excused absence if the student has notified the clinical site. Each additional absence will lower the final clinical grade by five (5) percentage points. A student may not be absent from clinical more than three (3) consecutive clinical days without a physician's excuse.

2. Tardiness in arriving for clinical education, regardless of "calling in", will result in the lowering of the student's final clinical grade five (5) percentage points for being tardy three (3) times during the semester. An additional two (2) points will be subtracted for each additional day tardy. Additionally, for every three (3) tardies, students will be required to attend an additional clinical day.

Note: Special consideration will be given in cases of inclement weather.

3. All missed time (excused or unexcused) is required to be made up prior to the end of the semester. Students shall not exceed more than forty (40) hours a week in the clinical setting. Under no circumstances shall a student exceed more than forty (40) hours in the clinical setting in one week. Additionally, a student is not permitted to be in the clinical setting more than ten (10) hours a day and are not permitted to stay in clinical past 5:30pm.

If the time is not made up prior to grade submission, the student will be awarded a grade of Incomplete (I) as their clinical grade until the time is completed. The student will be given the opportunity to make up the clinical time during semester breaks or the following semester with the permission of the program faculty and prior approval of the clinical instructor(s). Clinical make-up time must be performed at the facility in which the absence occurred and in the rotation that the absence occurred. Failure to make up the clinical time will result in the student receiving a failing grade and result in dismissal from the program.

4. Make up time should be performed in a minimum of two (2) hour blocks unless this amount of time would exceed forty (40) hours a week, or ten (10) hours a day, in the clinical setting. Students are not permitted to stay past 5:30pm. (If the students clinical start time is after 7:00am, not permitting the 2 hours allowed make-up time, a student may be able to being clinic early with both faculty and clinical instructor prior approval).

Absences from clinical should be made up in the initial two (2) weeks following the absence. Clinical time can be made up Monday through Saturday at the clinical facility in which the absence occurred and only with the permission of the Clinical Instructor and notification of the Clinical Coordinator. If scheduled make-up time is not completed at that date and time, it will result in an unexcused absence. Any clinical make-up time may be completed during weekdays (preferred), Saturdays, or evenings. *Sunday, midnight shifts, or holidays when the University is closed cannot be used for make-up time*

NOTE: Students may not exceed ten (10) hours a day or forty (40) hours of clinical time in any seven (7) day period.

5. If a student has missed clinic due to a medical restriction, the student must have a doctor's note describing the student's abilities to complete the full technical standards required by the program. Modifications are not permitted.
6. Student's involved in extracurricular activities must make arrangements with the clinical instructor and the program faculty prior to missing the clinical time. The student is required to make-up missed clinical time but will not be penalized for the absence.
7. Each student will be given one (1) personal day each semester of clinical. Students must request to use the personal day a minimum of two (2) weeks in advance or the request will be denied. The personal day cannot be used to replace a sick day, or in place of a scheduled or planned make-up day. Near the end of the semester, the student may contact the clinical coordinator or program director regarding using a personal day in place of an absence due to illness. Only after careful consideration of the reason for the absence by the program faculty will the student be allowed to use the personal day for an absence due to illness.

The personal day must be used for the current semester; it cannot be carried over to the next semester or banked for future use. However, if a student chooses not to use their allowed personal day, they will be given five (5) points on their lowest clinical evaluation from their clinical instructor. This extra credit opportunity will be applied to the current semester clinical grade only, not didactic grade. During the last semester of clinical education, students will **not** be permitted to take their personal day unless all competencies are complete. In addition, if a student has received demerits, lost clinical grade points, or received an incident report, they will not be awarded the bonus points from the unused personal day.

7. Emergencies serve as exceptions to the above policy and are at the discretion of the program faculty only. Students must notify the program faculty as soon as possible in the event of an emergency.

Trajecsys/Clinical Attendance Records

Shawnee State University Radiology Program utilizes Trajecsys © reporting system for the online clinical record and evaluation system. Students are responsible for the cost of this program. It is a one-time fee of \$150.00 made to Trajecsys (subject to change) and must be paid prior to the beginning of the students second semester.

Clinical attendance is monitored on the Trajecsys.com web site and requires the students to log in and out each day at the clinical site. The Trajecsys.com record documents the precise clock in and out time and identifies the student is at the appropriate clinical site. Each student must have their attendance approved by their Clinical Instructor approximately once a week.

Students who do not have access to the internet at the clinical site must log their attendance on a clinical attendance record form and require a registered technologist to initial the log in and out time. Clinical Instructor's signatures are required at the bottom of the clinical attendance record prior to turning them in to the clinical coordinator. The signature of the clinical instructor verifies that they have reviewed the clinical attendance record.

Students are not permitted to clock in/out of clinical on their cell phone. Using a cell phone will result an incident report and the loss of 5% points from the student's clinical grade.

An example of the Clinical Attendance Record will be provided by the clinical coordinator of the program.

Clinical Records

All clinical records are considered part of the student's academic record and are used to calculate the student's grade for clinical performance. This makes all documentation of clinical performance (including competency evaluations, clinical instructor's evaluations, and clinical time sheets) subject to the same regulations as grades awarded on campus for individual classes. Student's alteration or falsification of any of the information on the *Trajecsys.com* web site or on paper clinical forms are considered by the program faculty to be academic misconduct and will result in dismissal from the Radiologic Technology Program at Shawnee State University. It also may result in dismissal from the University.

Please review the "Academic Misconduct" policy in the Radiologic Technology Program Handbook or online in the Shawnee State University Student Handbook for information regarding the University's regulations in regard to Academic Misconduct.

Breaks

Students are given a 30-minute lunch break during each clinical experience day. The lunch break should be scheduled between 11am-1:30pm and will be given when workflow permits. Dinner breaks should be given between 4:30pm-6:30 pm when workflow permits. Additional breaks are not guaranteed and are at the discretion of program faculty or clinical instructor at the facility.

The student is expected to return no later than 30 minutes (unless prior approval is given) and will be considered tardy if student does not return on time. The student will be given a 1-point deduction for every minute he/she is late returning from lunch.

Students will not be permitted to take breaks during the clinical day to smoke/vape. Students must be able to attend clinical for the full day without taking a break for smoking or vaping.

Radiographic Laboratory Operating Rules

All students and faculty shall comply with the following rules when using the energized laboratory.

1. The lab shall only be used when a Radiologic Technology faculty member is on campus.
2. Radiation monitoring devices shall be worn during laboratory time if radiographic exposures are to be made.
3. The equipment is to be used **ONLY** for radiographing phantoms and to practice positioning. This equipment is not to be used to radiograph patients. If a radiograph is being taken, a faculty member must be present in the laboratory.
4. No one shall be in the x-ray room during any exposures and the door to the x-ray room shall be closed during all exposures.
5. The techniques used for radiographing phantoms and in other experiments will be provided as part of the laboratory experiment. If not provided, the lab instructor should approve the exposure technique.
6. The equipment shall be handled in a safe and easy manner. (EX: Do not force locks.)
7. If emergencies or problems arise with the equipment, Program Faculty should be informed immediately. (Examples: Locks do not work, field light does not work, collimator does not work, etc.)
8. Students are expected to participate in laboratory activities. If participation is not present, the student will not be allowed to attend clinical rotation assignment and will result in disciplinary action.

Until Further Notice:

9. Students will be required to wear PPE during the lab assignments.
10. Students will be asked a series of questions associated with COVID-19 before entering the lab area. Additionally, the student's temperature will be taken. If the student shows signs of a fever or has a fever of 101.4°, the student will not be permitted to enter the lab for that day. See COVID-19 policy for further information.
11. Students are to remain 6 feet apart at all times unless required by the lab assignment.

Student Dress Code for Laboratory

Students shall abide by the following dress code at all times while participating in the radiographic laboratory at Shawnee State University.

1. No food or drink permitted in the energized laboratory.
2. No gum chewing or smoking in the energized laboratory.
3. Hair must be clean and neat. Students with long hair should tie their hair back and off the collar. Facial hair must be kept clean and neatly trimmed.
4. Laboratory uniforms are required at all times in the laboratory environment that include Program approved polo shirt and khaki pants with tennis shoes (no open-toed shoes/flip-flops).
 - Shirts should not be too loose or too tight (program faculty discretion).
 - Undergarments should be white and should not be seen.
 - Pants should not touch the ground.
 - If student is not wearing lab uniform, that student will not be allowed to attend lab assignment and will receive an absent for that lab day.
5. Students shall adhere to proper grooming and hygiene.

Student Dress Code for Clinical Education

Students shall abide by the following Dress Code at all times while participating in clinical education as part of enrollment in the Radiologic Technology Program at Shawnee State University. Students are expected to maintain a neat, clean, and professional appearance at all times. Appropriate dress will include the following:

1. Hygiene

Particular attention must be paid to personal hygiene and cleanliness to help prevent and control infection. Students should bathe or shower daily, using soap. Use deodorant as necessary. Students should avoid using cologne or after shave that may induce allergic responses in patients. Hands must be clean and well-manicured at all times. Proper dental hygiene should be practiced; particular attention should be given to prevent mouth odors.

-Acrylic or gel nail are **not** permitted during a student's clinical education.

-Natural painted fingernails must be a light neutral color. The polish must be neat and well maintained.

1. Hair

Hair must be clean and well groomed. Hair below the shoulders must be pulled up at all times and off the collar, for both female and male students. Facial hair must be clean and neatly trimmed.

2. Jewelry

Jewelry should be kept to a minimum. Pierced earrings must be limited to two (2) small non-dangling post types. Bracelets and rings may lead to ineffective hand washing and serve as a reservoir for bacteria and therefore should not be worn. Neck jewelry must not be worn. Jewelry inserted into other areas of the body that would be visible to the patient is not allowed.

3. Clothing

Uniforms must be clean and well-pressed. Navy blue scrub pants and scrub tops are to be worn by both male and female students in the clinical setting. Lab coats are recommended and should be white or navy to match the uniform. Undershirts may be navy, white or black. Stripped or multi-colored shirts are not permitted.

For Women: White or black socks to match the shoes may be worn with the scrub pant. Undergarments must not be visible underneath a student's uniform (ie: sports bras). If undergarments are seen at the top or under the student's uniform, it is inappropriate and a violation of the dress code.

For Men: White or black socks are to be worn that are tall enough to cover the ankle/pant hemline. Socks with colored stripes are not appropriate.

4. Shoes

All white or black clinic shoes or leather athletic shoes, with laces, must be worn by both male and female students. The accent trim on the shoes must be approved. Shoes must be clean and polished. No open toe, shoes that contain holes, shoes without laces, and heel shoes are permitted.

5. Identification

Shawnee State University identifying name tag must be worn. (Students, if employed by an affiliate hospital, shall not wear their hospital identification badge during clinical education.

6. OSL Badge

An up-to-date personnel radiation monitoring device must be worn in the appropriate location (see radiation protection policy). Students cannot attend clinical experience without the presence of the radiation monitoring device

8. Gum chewing is not permitted.

9. Tattoos

All visible tattoos must be covered. Please note that some clinical sites may be more relaxed or strict with tattoos. The student is responsible for adhering to their clinical facility protocols.

10. Smoking/Vaping

Students will not be permitted to smoke during the clinical day. Additionally, students should not attend clinic, lab or the classroom smelling of nicotine smoke.

Any apparel or accessory to be worn as part of the student's uniform in the clinical setting must be approved by program faculty prior to the start of the clinical education. After approval, nothing can be added or removed from the approved clinical uniform.

Students should consult with the program faculty if they have any questions regarding the dress code requirements. The decision on the appropriateness of apparel will be made by the program faculty and/or clinical instructor. If any questions arise over the appropriateness of apparel, the final decision will rest with the program faculty. Any student who is determined not to be in compliance with this dress code will receive an incident report and will be asked to leave the clinical site (program faculty will be notified by the Clinical Instructor). The student will be given an unexcused absence and required to make-up the clinical time missed. The Dress code approval form can be found in Appendix K.

See Incident Reporting Policy

Dress Code Approval Policy

Professionalism is a defined goal set by the Radiologic Technology Program at Shawnee State University. Professionalism begins on the first day of class and continues throughout the program, including the clinical setting. An important part of professionalism is an appropriate dress code set by Program Faculty (see dress code policy). The student will be expected to follow the dress code set forth by Program Faculty every day at the clinical setting and lab setting. To ensure the student will be dressed appropriately and professionally, Program Faculty will approve attire to be worn in the clinical setting. Upon approval, the student and Program Faculty will sign the statement that the attire was approved and the student will abide by the dress code policy. If a student is not dressed in the approved attire, the student will receive a demerit of 5 points from their clinical grade and will need to complete and **Action Plan** (see Action Plan policy). The Action Plan will need to be submitted by the student in seven (7) days for approval with signatures from both student and Program Faculty. If the Action Plan is not submitted in seven days, the student will be placed on probation and a possible dismissal from the Radiologic Technology Program. (Dress Code Approval is located in Appendix K)

Policy for Student Employment

Many students find it necessary to maintain a part-time job while enrolled in the program. Some students may be employed by various retail or service industries or by some of the clinical education centers. The jobs at the clinical education centers may be technical aids, clerical staff or as student radiographers. Students must realize that their first responsibility is to the satisfactory completion of their education.

The following are guidelines for any employment:

- The employment is a relationship between the student and the employer. It is the student's responsibility and **NOT** the employer or program faculty to coordinate work and school schedules. The program will **NOT** act as an intermediary between the student and the employer.
- Employment is to take place **ONLY** at times outside of scheduled university classes, and clinical education hours. Students will **NOT** be excused early or granted excused absences from class or clinical in order to work.

If employed at a Clinical Education Center the following apply:

- Scheduled **PAID** working hours cannot be substituted for required clinical education hours.
- Clinical competency evaluations **MAY NOT** be completed for credit during paid working hours.

Student Medical Professional Liability Insurance

Student liability insurance is mandatory for all students accepted into the Radiologic Technology Program. Liability insurance that will cover students at any time they are functioning as a student is furnished by the University. However, students must recognize that the University policy does not provide coverage for outside employment nor does it cover the student performing services for which he or she is not trained.

Student Health Insurance

The student is held financially responsible for their own health insurance. Acceptance students are required to provide proof of health insurance prior to attending clinical requirements. Students are financially responsible for any medical treatment they receive during their clinical training. Failure to provide and maintain health insurance coverage will result in delay of clinical education.

Students entering Health Science and Athletic Training programs are required, with the option to formally decline, to incur the expense of their own hepatitis B vaccine as a condition of admission. The student must understand that a formal declination is made, some clinical affiliations will not allow students to rotate within their facility without proof of vaccinations.

Neither the University nor the hospital affiliates assume any financial responsibility for the student's medical care in any way.

Communicable Diseases and Student Radiographers

Any student who believes they may have contracted a communicable disease shall follow these procedures. *

1. Contact a physician immediately regarding your condition. Do not participate in clinical education until your physician states that it is safe to do so.
2. Upon diagnosis of a possible communicable disease, the student must present the program director a written statement from the physician that indicates the contraction of the disease.
3. The student will then be excused from clinical education until a second statement is received from the physician stating safety of the student's return.
4. Students will be allowed to make up any missed clinical time due to a communicable disease.

*NOTE: This policy does not apply to exposure to bloodborne pathogens. To report that type of exposure, see Department of Allied Health Policy for Exposure to Bloodborne Pathogens.

Technical Standards

Students must meet the following criteria as a prerequisite for clinical education in the Radiologic Technology Program. If at any time during completion of the program that a student becomes unable to follow the following criteria, the student will be dismissed the Radiologic Technology Program.

1. Observation: The student must possess sufficient eyesight either naturally or through correction to:
 1. Observe patients for any changes in their condition during an imaging procedure.
 - b. Manipulate equipment, such as setting technical factors on the radiographic control panel.
 - c. Evaluate radiographic quality for correct exposure factors and proper positioning.
 - d. Read and interpret printed material such as a textbook or imaging procedure request.
2. Communication: The student must possess good verbal and nonverbal skills such as:
 - a. Sufficient hearing either naturally or through correction, to address a patient's verbal request.
 - b. Communicate verbally with patients and other health care providers.
 - d. Sufficient verbal and written skills to communicate needs promptly and effectively in English.
3. Motor Skills: The student must possess gross and fine motor coordination to:
 - a. Respond promptly to patient and health care providers request for assistance in moving wheelchairs, carts and other medical equipment.
 - b. Lift a minimum of 30 pounds, and pull approximately 150 pounds of weight safely.
 - c. Provide CPR or other emergency treatment to patients.
 - d. Possess skills to carry out diagnostic procedures.
4. Intellectual/Conceptual Integrative and Quantitative Abilities: The student must possess satisfactory intellectual and emotional function to:
 - a. Exercise independent judgment in the safe practice of medical imaging procedures.
 - b. Use discretion in performing radiographic imaging procedures and handling confidential patient information.
 - c. Solve problems in obtaining radiographic information in difficult situations without causing harm to the patient.

Academic Field Trip Policy

A part of the curriculum of the Radiologic Technology program, students will travel to hospitals for presentation and tours of facilities. Students must attend all required trips and must sign an acknowledgement, indemnification and release before the required trip (See Appendix F). This form must be signed and turned in to the program director before the academic field trip is schedule.

Acknowledgement and Signature Policy

The program handbook has policies and procedures written for each cohort and compiled before students begin their first day of program courses. Policies and procedures may need to be amended or eliminated at the discretion of program officials. If a policy or procedure is amended, each student will receive a copy of the amended item and is required to sign an acknowledgement page indicating that he/she will abide by the new policy or procedure. Failure to sign this acknowledgement page will not allow the student to continue with didactic or clinical courses and therefore, will be dismissed from the radiologic technology program. See Appendix A.

Forms of Communication Policy

An open communication is required among students, program officials and clinical instructors. It is imperative that all parties observe appropriate forms of communication to uphold a professional relationship. Students are encouraged to use email as an appropriate form of communication with clinical instructors and program officials. Additionally, students are encouraged to download the “remind” app available on all smart phones and devices that will allow students to “text” program officials. It is important that students respect appropriate times and days to include 7am-8pm, Monday-Friday. It is unacceptable for students to communicate with clinical instructors and program officials through any type of social media platform.

Clinical Site Orientation Policy

The student is required to attend all mandatory clinical site orientations and complete all paperwork involved with the orientation procedure. If student fails to attend orientation, that student cannot continue into the clinical experience rotation schedule and will therefore, be dismissed from the program.

Evaluations Policy

The Radiologic Technology Program performs a variety of evaluations to assessment student performance. Students will be evaluated from the clinical instructors as well as program officials. It is imperative that students review evaluations. After each evaluation from the clinical instructor is performed for each semester, the student is required to review the evaluation and the comments made and hand-write those comments on a sheet of paper and present them to the program director.

Additionally, At the end of each semester, students will have the opportunity to evaluate their experiences in clinical education by completing the “Student Evaluation of Clinical Instruction” form provided by the program at the end of the term. The form will be on-line on the Trajecs.com web site. Students are urged to be objective while completing the form and provide as many written comments where applicable and be aware that your Clinical Instructor will have access to the evaluation.

The “Student Evaluation of Clinical Instruction” form is to provide the affiliate radiology department and the program faculty with constructive feedback from the students on areas where clinical education may be improved. Evaluations are required by students at the end of each semester. This must be completed before the final clinical grade will be released.

See Appendix P

Use of Electronic Devices in the Classroom, Laboratory, and Clinical Environment

Cell phones must be turned off while students are in the classroom and laboratory. They should be off the desk and out of sight during lecture and laboratory sessions.

Students are required to have a calculator for use in Radiologic Technology courses. It is the financial responsibility of the student for the purchase of a calculator used for class. Cell phones cannot be used as a substitute for a calculator.

Students should not use a cell phone or other device to make a copy of an exam or handout for use or reference later. In addition, such electronic devices should not be used to record lectures, exam reviews, or course content. Students caught using their cell phone or other device during an examination will be dismissed from the program and possibly the university (See academic misconduct policy.)

Use of cell phones, smartwatches, tablets, or laptops at clinical sites is prohibited unless on break or at lunch. Cell phones will not be welcome into clinical affiliates. Students are welcome to leave cell phones in their car or at home. Students are assigned to the clinical sites for an educational experience. Interruption of this experience by cell phone calls or the distraction of students, patients, or staff by personal calls is unacceptable.

Any student, who is concerned about receiving emergency calls, is welcome to leave the telephone number of the clinical site with family members so that they may be contacted, through the department receptionist, in the event of an emergency only.

Any student found using their cell phone, smartwatch, laptop, or other electronic device while in the clinical setting will be sent home, given an unexcused absence for the day, required to make up the time, and a written incident report will be filed (see incident reporting policy).

Physical and Vaccination Requirements

All students enrolled in the Radiologic Technology Program are required to have a physical performed before clinical education can begin (See Appendix D).

Additionally, students are required to show proof of the following vaccines:

Varicella (2-step or proof of disease & 1-step)

D.P.T.

Polio

MMR

Tetanus

Hepatitis B (Strongly recommended)

Students are also required to show proof of a two-step TB skin test before clinical experience can begin and a one-step TB skin test is required one year later. Flu vaccines are required annually. Students must show proof of completed vaccinations before clinical experience can begin. Please note that some clinical sites may have additional requirements and is the responsibility of the student to complete these requirements.

Radiation Protection for Student Technologists

ALARA: As Low As Reasonably Achievable: All students and faculty members should keep their own exposure as well as their patient's exposure as low as reasonably achievable. The three cardinal principles of radiation protection should be employed to protect yourself which are as follows: Time – reduce the time or length of exposure whenever possible: Distance – keep as far away from the source as possible when the x-ray tube is energized: and, Shielding – when other means of protection are not available you should wear a protective lead apron to protect yourself from scattered radiation. (Be aware that the distance factor provides the most protection for the student and faculty members.) The students need to be aware that all three cardinal principles of radiation protection cannot be utilized effectively for patients (for example you cannot limit distance when a 40 inch distance is required for a specific procedure) but you can utilize shielding and to a certain extent time. (Every time you repeat a film you are increasing the patient's length of exposure.) Fewer repeats affect the time a patient is exposed, shielding body parts not included in the area of interest, and collimating to only the area of interest employ the shielding principle of radiation protection.

The effects that may occur from exposure to ionizing radiation (x-rays) can be classified as either somatic or genetic. Somatic effects would become evident in the exposed individual. This type of effect would not be expected in individuals who work in hospitals unless there was a gross radiation accident. Genetic effects would become evident in the descendants of the exposed individual. Thus, the effects would not be present in the exposed individual but may appear in subsequent generations. If the recommendations that are outlined below were followed, it would not be expected that any worker (student) would receive enough radiation to transmit appreciable genetic mutations. Thus, it should not be assumed that any genetic defect is directly due to the exposure of a parent.

In summary, it can be said that the risk incurred as a radiographer (radiation worker) is slight and should be accepted the same way as risks to workers in other workers in other fields such as electricians, chemists, coal miners, and truck drivers. Despite the slight risk, the radiographer (student) should not allow familiarity to result in false security. All students shall abide by the following guidelines to keep their exposure as low as possible:

1. Only patients requiring a radiographic examination should be in the x-ray room.
2. The student shall be behind a protective barrier when x-rays are being generated.
3. Always wear protective apparel (lead aprons, gloves) when not behind a protective barrier. Protective aprons and gloves should not be folded sharply when not in use but hung on the appropriate hangers.
4. The holding of patients during an exposure should only be done after other measures (tape, sandbags, compression bands and commercial immobilizing devices) prove inadequate. **Students should not hold patient during any radiographic procedure. Students also must not hold image receptors during any radiographic procedures (JRCERT, 2014).** Relatives or friends of the patient or aides, or nurses should be enlisted if holding is necessary.
5. The student operating or assisting in portable radiography (O.R.) shall **wear a protective apron and stand as far as possible from the patient (at minimum six feet away)**. It is the operators' responsibility to insure the proper protection of other persons in the area. Persons who do not need to be by the patient should be asked to leave the immediate area. Those persons who must be near the patient should be provided with protective apparel.

6. For procedures such as fluoroscopy in which you cannot leave the vicinity of the patient, you shall **wear a lead apron** and try to be **at least six feet away** from the patient during activation of the x-ray beam.
7. The student must always wear radiation monitoring device in clinical or in the energized lab. Student cannot attend clinical experience or laboratory exercise with dosimeter. The badge should be positioned outside the lead apron on the collar. Do not allow other personnel to use your badge. On a monthly basis, the monitor will be exchanged for a new one. It is the responsibility of the student to ensure the monitoring device is changed in a timely manner. The old monitor will be returned to Landauer, Inc., for processing. The results and cumulative totals are sent to the University. To keep you informed of your cumulative exposure the latest month's results will be shared with you during one of your classes for you to review and initial. Students must review and initial dosimeter report each month.
8. Use gonadal shields on all persons when such use will not interfere with the examination.
9. Follow the appropriate policy of the clinical education center in which you are assigned concerning examinations of the pelvis and lower abdomen of women of reproductive capacity.

Previous reports are kept in the Program Director's office. Store your radiation monitor in a safe place when you are not wearing it. Keep the monitor away from any heat or radiation sources. Remember to remove your badge from your lab coat or uniform before laundering it. If the monitor is lost or misplaced, report this to the Program Director as soon as possible.

An investigation level of a dose equal to or greater than 100 mrem whole body dose (2 % of the annual allowable dose) in any semester on their radiation reports will result in an investigation by the Program Director. The investigation will be performed to address possibly poor radiation protection practices by the student. Documentation of the report will be inserted into the student's academic record. If practices do not improve, the student may be required to forego their clinical education.

A report will be filed with the Director of the Ohio department of health in incidents that involve exposures as stated in **General Radiation Protection Standards** Chapter 3701:1-38-21 of the Ohio Administrative Code (OAC).

SOURCES:

NCRP Report No. 105: Radiation Protection for Medical and Allied Health Personnel. October 30, 1989. Bethesda, Maryland. National Council on Radiation Protection and Measurements.

Arlene M. Adler and Richard R. Carlton (2003), Third Edition, Introduction to Radiography and Patient Care, W. B. Saunders Company, Philadelphia, PA.

JRCERT. (2014). Standards for an Accredited Educational Program in Radiography.

The above references as well as others regarding radiation protection are available for your information from the Program Director or University Library.

Pregnant Radiologic Technology Students-Addendum

Student technologists who become pregnant have several options available to them. These include:

1. A written notice of voluntary declaration.
2. An option for written withdrawal of declaration.
3. An option for student continuance in the program without modification.
4. An option to withdraw from the program and return the following year (if space is available).
5. An option to continue with the didactic courses and complete the clinical courses after the delivery (if space is available).

Student technologists who are pregnant may continue with their clinical education in the Radiologic Technology Program without modification. The pregnant student has the option of declaring their pregnancy. Completing the Declaration of Pregnancy form and giving it to the Program Director accomplishes formal declaration. This will enable additional protective measures to be offered to you. It is recommended that pregnant students do this and do it as soon as they suspect they are pregnant. The first 3 months of gestation is the most critical period for fetal development.

Choosing options 2, 3, or 4 require the student to inform the Program Director in writing of their decision.

The following guidelines shall be followed once a student has “declared” their pregnancy:

7. The pregnant student technologist shall be informed of the effects of radiation on the fetus and acceptable practices of radiation protection. The student shall sign consent acknowledging that she has received this information.
2. The pregnant student technologist will be issued a second radiation monitoring device that will be worn on the abdomen and under the protective apron. The original monitoring device will be worn in the normal location.
3. The student technologist shall wear the monitoring device(s) at all times while in a radiation environment. The monitoring device will be processed monthly.
4. During the entire gestation period, the dose equivalent limit to the embryo-fetus or the student technologist from occupational exposure will not exceed 0.5 rem (5 mSv) (NRC 10CFR20.1208)
5. The student technologist may at any time have full access to her radiation monitoring device records.
6. A student technologist who is pregnant **shall not** perform the specific duties associated with the radiographing of patients having intracavity or interstitial sources of gamma radiation (radium or cesium).

7. A student technologist who is pregnant **shall not** hold or assist in holding a patient during a radiographic or fluoroscopic exam, nor shall the student be involved in any procedure where she may be in the direct or useful beam.
8. The pregnant student should advise her physician of her plans of continuing her clinical education and abide by his/her advice.
9. Students will be allowed to make up any missed clinical time due to pregnancy or immediate post-natal care. The student may accumulate time prior to the expected delivery date. Arrangements must be made with the clinical coordinator and the appropriate hospital personnel.
10. At any time, a student may retract their declaration of pregnancy by providing written documentation to the Program Director.

If the student chooses to complete the program without withdrawing from didactic or clinical requirements, then that student technologist who is pregnant will continue all other phases of her training as expected of any other student.

Declaration of Pregnancy

In accordance with the NRC's regulations at 10 CFR 20.1208, "Dose to an Embryo/Fetus," I am declaring that I am pregnant. A written confirmation from their physician on the estimated date of conception and the expected delivery date is required. Students must also submit a release from their physician following delivery to return to classes and clinical.

In signing this form, it is acknowledged that:

1. I have read the information on "Pregnant Radiologic Technology Students" from the program handbook and any other material suggested by the Program Director.
2. The U.S. Nuclear Regulatory Commission's Regulatory Guide 8.13 and appendixes were presented to me both in oral and written form.
3. I understand the radiation dose to my embryo/fetus during my entire pregnancy will not be allowed to exceed 0.5 rem (5 mSv) (unless that dose has already been exceeded between the time of conception and submitting this form). I also understand that meeting the lower dose limit may require a change in clinical assignments during my pregnancy.
4. I understand that I have the right to withdraw this declaration of pregnancy if I so choose.
5. The Program Director or faculty member provided a question and answer period following the above discussion, during which my questions, if any, were satisfactorily answered.
6. I understand that I may retract this declaration by providing the request for retraction in writing to the Program Director.

Signature _____ Date _____

Print Name _____

Second Film Badge Ordered _____

Current Badge Total _____

Clinical Rotation Policy

Students will be expected to follow the guidelines of the clinical rotation policy. Students will not be asked to drive more than 70 miles from the University. Each student will rotate to a new clinical site each semester, but may return to that facility in a later semester. Students will be permitted to request a specific facility, but the request is not guaranteed. Rotation plans are based on experiences provided by the clinical affiliate and the proximity of the student. Rotations are complete for the two years of clinical experience in the first summer semester before clinical rotations begin. Changes to the rotation plan are up to the discretion of the clinical coordinator.

Additionally, if a student is asked to leave a clinical facility and not to return due to disciplinary reasons, that student will be placed at a different clinical rotation (if one is available) and if a spot is not open for the student to be placed, that student will be dismissed from the program. If multiple spots are open, it is up to the discretion of the faculty as to where the student will be placed and will be dependent on proximity and variety/volume of examinations provided by that affiliate.

Clinical Supervision-Addendum

Students in the clinical setting are observed by a variety of health care professionals during their training, but they are specifically required to have two types of supervision by registered radiographers. The two types of supervision are as follows:

DIRECT SUPERVISION

Direct supervision insures a registered radiographer is present in the room, observing the student while he/she performs the imaging examination. The 2021 Standards by the JRCERT indicate that supervision of a qualified radiographer is someone 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.

This type of supervision is required on any imaging procedure in which the student **has not proven competence** in performing, **any repeat** of an unsatisfactory radiograph (regardless of the reason for the repeat), and during **surgical and all mobile, including mobile fluoroscopy, regardless of the level of competency** (JRCERT, 2021 Standards) (See below).

INDIRECT SUPERVISION

Indirect supervision requires a registered radiographer be immediately available during the student's performance of the imaging examination. This type of supervision is required when a student has proven competency on an examination and the competency has been documented by either a mandatory or standard competency evaluation.

Note: Students should never be alone in the radiology department without supervision by a registered radiographer.

Supervision of Students During Fluoroscopic Examinations

During the course of the program students are required to perform competency examination involving fluoroscopy. As part of a fluoroscopic examination, some clinical facilities may require the student to operate fluoroscopic equipment. Please be aware that the following policy applies to operating fluoroscopic equipment.

- Students should not operate any type of fluoroscopic equipment when patients or any human subject is involved unless directly supervised by a registered radiographer or radiologist who is present in the room.
- Students should never use fluoroscopy to aid in positioning a patient for any radiographic or fluoroscopic examination.
- Students should not perform mobile imaging without direct supervision.

Competency Based Clinical Education

The implementation of a competency based evaluation system conducted with a series of planned clinical rotations that provide a standardized format for evaluation of the student in the clinical setting. In addition, the system is designed to allow each student to progress at an individual rate consistent with the student's abilities, knowledge and motivation provided that the student meets consistent, minimum, performance standards established to demonstrate satisfactory progress through clinical education.

The didactic (classroom) and laboratory aspects of the curriculum have been well integrated with clinical assignments to allow each student the opportunity to achieve program goals and objectives in the optimum manner. Concurrent conduction of didactic and clinical experiences allows students to apply classroom and laboratory principles to the clinical situation in a systematic and organized manner. To achieve a meaningful and productive clinical participation, the student is provided with behavioral objectives which specify desired behaviors to be met in each area of instruction. As the student masters didactic and laboratory objectives, the student applies these principles in the clinical setting, guided by the objectives for clinical education.

Attainment of Clinical Competency

The student begins the clinical experience by observing and assisting the registered staff technologists in the performance of radiographic examinations. This experience serves to familiarize the student with the care and radiography of patients for a given exam. Once the student masters the exam as taught in radiographic positioning classes, the student moves from a passive role to one of active participation, thus gaining "hands on" experience under the **direct supervision*** of a registered Radiographer.

The performance of a student on a radiographic examination cannot be assessed until the material concerning the examination was presented to the student in the classroom/laboratory setting. However, the student may assist the Radiographer with any examination in the clinical setting.

Clinical Grading

It is the student's responsibility to meet all of the criteria outlined in the handbook for the clinical education courses in order to receive passing grades in those courses.

One criterion is the successful completion of the required number of radiographic examinations per semester. This consists of evaluations of the student's performance on Mandatory Competency Evaluations and Standard Evaluations. The forms will be supplied by the program. They must be completed by the student, the clinical instructor performing the mandatory clinical evaluation, and the registered Radiographer performing the standard evaluation. It is the student's responsibility to maintain a record of the number and type of evaluations received to satisfy the semester requirements. The overall average of the criteria on the Mandatory Competency Form must be eighty per cent (80%) or better and have no zero ratings to be considered satisfactory. If an unsatisfactory evaluation is received, the student must be re-assessed.

After satisfactory completion of the Evaluation on a radiographic examination(s), the student may then perform that examination(s) under **Indirect Supervision**^{**}. Until the Evaluation is completed, students must perform all radiographic examinations under **Direct Supervision**^{*}. A repeat of any image requires **Direct Supervision**^{*}. All examination requiring the student to operate fluoroscopic equipment require **Direct Supervision**^{*}.

A registered radiologic technologist must check and approve all radiographs taken by a student, regardless of whether the student performed the examinations under direct or indirect supervision.

Students must perform all repeat radiographic examinations under the direct supervision of a registered radiologic technologist. Students repeating a radiograph, for any reason, must identify the examination in their patient log book as a repeat and are required to have the registered radiographer who observed the repeat exam to initial the log entry. The repeat exam must also be logged in the trajecs.com website. (See Repeat Examination Log Policy and additional information under “Additional Requirements” #5)

Students who consistently fail to maintain competency in performing a specific radiographic exam may lose that competency if the Clinical Instructor feels they have failed to remain proficient. The Clinical Instructor must fill out the Failure to Maintain Competency form and the student must perform the exam under **Direct Supervision**^{*}, until they repeat the competency without error under observation by their clinical instructor. Failure to meet the required number of competencies for the semester will result in a lower clinical grade. Failure to meet the required number of competencies for two consecutive semesters will result in the probation for the student. Failure to complete all the requirements (including the two previous competencies requirements) and the current semester will result in dismissal from the Radiologic Technology Program.

In addition to the aforementioned items, the student will be evaluated by the clinical instructor and program faculty at regular intervals during each clinical course. Students must earn satisfactory ratings on the "Clinical Performance Evaluations" in order to meet the minimal requirements for each clinical course.

All materials must be received by the clinical coordinator before the last day of the semester in order to be credited to the student's grade for that clinical course.

***DIRECT SUPERVISION** requires a registered radiographer must be present, observing the student perform the imaging examination.

****INDIRECT SUPERVISION** requires a registered radiographer be immediately available during the student's performance of the imaging examination. Example: Radiographer can be in an adjacent imaging suite or, on portable examinations, the radiographer must accompany the student to the patient's floor and be immediately available should the student require assistance.

Daily Log

Students are required to keep a daily log of examinations performed in the clinical setting (mandatory competency evaluations, standard evaluations and indirect supervised examinations only). The log shall include the date of the examination and the procedure performed (Trajecsyst[®] Daily Log). This will be checked weekly by program faculty. Failure to maintain a Daily Log of examinations will result in lowering the final clinical grade by 2 percentage points.

Repeat Examination Log

Any imaging examination requiring a repeat x-ray to be performed will require the student to identify the examination and the registered radiographer who **directly supervised** the repeat must sign the log entry. **Additionally, repeat exams must also be logged in the trajecsyst.com website.** Failure to keep the log, or to produce the log when asked to in the clinical setting by program faculty, will result in a lowering of the final clinical grade by 2 percentage points and an incident report.

Semester Requirements for Clinical Education

First Year

FALL SEMESTER 2020 - RDLT-1290

1. Attendance at all clinical sessions.
2. Satisfactory completion of Competency Unit 1.
3. Satisfactory completion of six (6) mandatory competency evaluations.
4. Two (2) Clinical Performance Evaluation from the Clinical Instructor.
5. One (1) Procedural Evaluations by Program Faculty in the clinical setting.

SPRING SEMESTER 2021 - RDLT -1390

1. Attendance at all clinical sessions.
2. Satisfactory completion of Eight (8) mandatory competency evaluations.
3. Satisfactory completion of Four (4) standard evaluations.
4. Two (2) Clinical Performance Evaluations from the Clinical Instructor.
5. Two (2) Procedural Evaluations by Program Faculty in the clinical setting.
6. One (1) Clinical Performance Evaluation from the program faculty.
7. Two (2) Critical Experience Journal Entries

Second Year

SUMMER SEMESTER 2021 - RDLT 2190

1. Attendance at all Clinical sessions.
2. Satisfactory completion of Ten (10) mandatory competency evaluations.
3. Satisfactory completion of Five (5) standard evaluations.
4. Two (2) Clinical Performance Evaluations from the Clinical Instructor.
5. Biweekly quizzes on Blackboard. **
6. Two (2) Procedural Evaluations by Program Faculty in the clinical setting.
7. Two (2) Critical Experience Journal Entries

Procedures from all Mandatory and Standard Competency Units may be completed with appropriate direct or indirect supervision.

FALL SEMESTER 2021 - RDLT 2290

1. Attendance at all clinical sessions.
2. Satisfactory completion of Eight (8) mandatory competency evaluations.
3. Satisfactory completion of Five (5) standard evaluations.
4. Two (2) Clinical Performance Evaluations from the Clinical Instructor.
5. One (1) Clinical Performance Evaluation from the program faculty.
6. Two (2) Procedural Evaluations by Program Faculty in the clinical setting.
7. Two (2) Critical Experience Journal Entries
8. Students can begin rotations through the radiographic specialty areas. Students must spend a minimum of one clinical day in each of the following specialty areas prior to graduation. See Appendix I
 - a. Computed Tomography
 - b. Sonography
 - c. Radiation Therapy
 - d. Magnetic Resonance Imaging
 - e. Nuclear Medicine
 - f. Mammography (optional, if applicable)

SPRING SEMESTER 2022 - RDLT 2390

1. Attendance at all clinical sessions.
2. Satisfactory completion of Five (5) mandatory competency evaluations.
3. Satisfactory completion of Four (4) standard evaluations.
4. Two (2) Clinical Performance Evaluations from the Clinical Instructor.
 1. One (1) Clinical Performance Evaluation from the program faculty.
 2. Two (2) Procedural Evaluations by Program Faculty in the clinical setting.
3. Student must complete an evening rotation through the radiology department. This is to be a minimum of one clinical day during the hours of 1:30pm-9:00pm scheduled and approved by the clinical instructor. This must be completed prior to graduation.
4. Students must complete rotations through the radiographic specialty areas. Students must spend a minimum of one clinical day in each of the following specialty areas prior to graduation.
 - a. Computed Tomography
 - b. Sonography
 - c. Radiation Therapy
 - d. Magnetic Resonance Imaging
 - e. Nuclear Medicine

Students must demonstrate competence in all 6 patient care activities listed, in all **37 procedures identified as mandatory, and 18 of the 34 standard procedures**. Students must perform at least **one of the 18 standard procedures from the head section**. Students **must also perform two standard fluoroscopy procedures -including an upper GI or barium enema, plus one other standard from the fluoroscopy section as a part of the 18 standards**. All procedures must be performed under direct supervision and documented by the clinical instructor. These must be completed by the end of Spring semester 2022.

Failure to complete the required number of mandatory competency procedures and standard procedures each semester will result in a lowering of the competency unit evaluation component of the clinical grade by the percentage of units uncompleted.

Clinical quizzes biweekly on Blackboard during Summer Semester RDLT-2190 should be used as a review of previous course materials. Failure to receive an average clinical grade of 80% or higher in your clinical performance scores will result in no credit issued in this course for the Blackboard quizzes.

Clinical experience journal entries will be complete to aid in and assess the student's ability to critically think in non-routine situations. Each journal entries is worth 15 points and will be calculated into the associated clinical course.

All Surgery competencies must be completed by the end of fall semester of the students' second year. This is due to the completion of modality rotations, evening shift rotation, and necessary clinical site placements required prior to the students' final clinical semester. Failure to complete the required mandatory surgical competencies will affect the student's grade, clinical placement and graduation status.

Clinical Education Grading Policy

RDLT Clinical Courses: 1290, 1390, 2190, 2290, and 2390

<u>Criteria</u>	<u>Points</u>
• Mandatory Competency Evaluations	10
• Standard Evaluations (after first fall semester)*	5*
• Clinical Performance Evaluations:	
1. From the Clinical Instructors	
a. Midterm Evaluation	20
b. Final Evaluation	20
2. From the Program Faculty**	10**
○ Not performed in RDLT 1290	
○ Clinical Quizzes (RDLT-2190) replace	
• Two Journal Entries each semester (after first fall semester) *	10*
• Procedural Evaluations	30
○ 2 performed each semester (1 for RDLT 1290)	
Total Points	65 105*

Students must maintain a 75% average in both their clinical and didactic grades. Failure to maintain a 75% or greater average will result in dismissal from the program.

* No standard evaluations required during RDLT-1290 (First Clinical Semester).

*Journal entries not required for RDLT-1290.

**Clinical quizzes biweekly on Blackboard during Summer Semester RDLT-2190 should be used as a review of previous course materials. Failure to receive an average clinical grade of 80% or higher in your clinical performance scores will result in no credit issued in this course for the Blackboard quizzes.

Competency Examination Completion

Students are required to complete both Mandatory and Standard Competency Evaluation in the clinical environment. Most of the procedures listed on the Mandatory and Standard Check-off list require the student to first observe, then assist with the procedure prior to having the Clinical Instructor document the student competent to perform the procedure with indirect supervision. The Check-off list requires the student to date the assist, observation, and competency completion. When the competency is completed, the Clinical Instructor should evaluate the procedure on the *Trajecs.com* web site or on the appropriate form.

Mandatory Competency Evaluations:

The student is required to complete an assigned number of radiographic examinations for mandatory competency evaluation each semester **under the direct observation of the Clinical Instructor/Registered Radiographer or the Program Faculty**. (Refer to the Semester Requirements for Clinical Education section for requirements.) Mandatory competency evaluations are graded on a pass/fail basis. If the student repeats any part of the imaging procedure due to the student's error, the competency evaluation should be considered a failure and documented as such on the mandatory competency form. The student must repeat the mandatory competency procedure without error at a later date. Receiving two or more failures on Mandatory Competency Evaluations will lower the student's final clinical grade by five (5) percentage points. Each additional failure will lower the clinical grade by five (5) percentage points each. See Appendix Q.

Standard Evaluations:

The student is also required to complete a required number of standard evaluations each semester (except during the clinical component of RDLT 1290). The standard evaluation examinations must be completed **under the direct observation of a Clinical Instructor/Registered Radiographer** in the clinical setting. Standard evaluations are evaluated on a pass/fail basis. If the student must repeat any part of the examination due to student error the evaluation will be considered a failure. The student must repeat the examination at a later date. Receiving three (3) failures on standard evaluations during the quarter will lower the final clinical grade by five (5) percentage points. Each additional failure will lower the clinical grade an additional five (5) percentage points. See Appendix R

If the student completes more than the required number of exams during a semester, the extra exams will be credited toward the requirement for the following semester.

Simulated Examinations:

A student may perform a radiographic examination for competency evaluation under simulated conditions using a "mock" patient. Simulated examinations will be performed only for those exams that may not be available to the student in the clinical setting. A limit of two (2) simulations may be performed in Spring Semester 2022 prior to graduation. To arrange a simulated exam for competency evaluation, the student must contact the clinical coordinator.

Simulated radiographic exams may be performed in the radiology department where the student is assigned or in the lab at the University. Simulated radiographic exams must be performed by the program faculty. If a student has not completed all competency evaluations and must perform a simulation, he/she will not be permitted to use their personal day.

CLINICAL PERFORMANCE EVALUATION FIRST YEAR (RDLT 1290 & 1390)

This evaluation will be used to assess the overall performance of a student in clinical education during the first clinical experience semester. A maximum grade of 60 points can be awarded during each evaluation, with a total of 120 points for the semester. Students are expected to review evaluations from clinical instructors for areas of improvement. Evaluations are conducted by clinical instructors at affiliated facilities. See Appendix U

CLINICAL PERFORMANCE EVALUATION SECOND YEAR (RDLT 2190)

This evaluation will be used to assess the overall performance of a student in clinical education during the first clinical experience semester. A maximum grade of 70 points can be awarded during each evaluation, with a total of 140 points for the semester. Students are expected to review evaluations from clinical instructors for areas of improvement. Evaluations are conducted by clinical instructors at affiliated facilities. See Appendix V

CLINICAL PERFORMANCE EVALUATION SECOND YEAR (RDLT 2290 and 2390)

This evaluation will be used to assess the overall performance of a student in clinical education during the first clinical experience semester. A maximum grade of 70 points can be awarded during each evaluation, with a total of 140 points for the semester. Students are expected to review evaluations from clinical instructors for areas of improvement. Evaluations are conducted by clinical instructors at affiliated facilities. See Appendix W

PROGRAM FACULTY CLINICAL PERFORMANCE EVALUATION

One Clinical Performance Evaluation will be completed at the end of all RDLT clinical courses by the program faculty. Each evaluation is worth a maximum of 45-50 points. Students are expected to review evaluations each semester and look for opportunities for improvement. See Appendix X

PROCEDURAL EVALUATIONS

Each student will be evaluated by the **Program Faculty** while performing radiographic imaging procedures during all clinical courses. Examinations will be chosen by the faculty and will be on exams that the student has already completed for mandatory competency evaluation or standard competency evaluation. An eighty percent (80%) average on each procedural evaluation is necessary to pass the examination. Failure to pass the procedural examination requires the student to perform the same examination at another time. The average of the scores must be equal to or greater than 80%.

Procedural evaluations will be averaged together and will account for thirty percent (30%) of the student's clinical grade. See Appendix S

Additional Requirements

Students may receive a LOWER grade for a clinical course if they fail to meet these additional requirements.

1. OSL badges must be changed on a monthly basis. Two (2) percentage points will be deducted from the student's final clinical grade for each month during the semester that the badge is not changed within three clinical days of the date on the badge insert. The only exception is when the date of change occurs during breaks periods, the OSL badge insert should be replaced within the first three (3) clinical days of the following the return to classes on campus.

Part of the student's responsibility is maintaining their radiation monitor. Failure to maintain control of your radiation dosimeter or loss of your radiation dosimeter will result in 5 points from your final clinical grade each time for each loss or your personal radiation monitor.

2. Students must adhere to the procedure outlined in the clinical Attendance Policy regarding absences from clinical education, as well as all other policies and procedures as stated in this handbook.
3. Students must also participate in clinical activities, such as x-ray critiques, review sessions, case presentations, additional labs, etc., as assigned by the program faculty or clinical instructors. Five (5) percentage points will be deducted from the student's final clinical grade for failing to participate in these activities.
4. Students are provided anatomic side markers with their initials on them. It is a requirement of the program for the student to keep track of these markers and have them in their possession at all times in their assigned clinical affiliate. Loss of a marker, without promptly requesting a substitute, will result in the lowering of the student's clinical grade by five (5) percentage points. Anatomic marker replacements are at the financial responsibility of the student. Students are not permitted to have personalized anatomic markers. Markers must be rectangular in shape, right anatomic marker is red in color, left anatomic marker is blue in color, and both must contain student initials (three initials unless unavailable, then two is acceptable.)

Clinical Experience Advising

Clinical Experience Advising is separate from Program advising. Clinical Experience Advising will be deemed necessary from Program Faculty if the student is not progressing adequately for program completion. The Clinical Experience Advising Report will be completed by Program Faculty that will provide goal(s) and objectives for the student to improve technical or behavioral skills to continue in the Radiologic Technology Program. Program Faculty will also make recommendations to the student based on the advising need. Students will need to provide an action plan within seven (7) days of receiving the advising sheet that will outline how the student will obtain the goal(s) set by Program Faculty. If the action plan is not submitted on time, the student will be placed on probation and will still need to complete the action plan or face dismissal from the Radiologic Technology Program. The student and Faculty member will sign the Clinical Experience Advising Report to complete the process and the report will be placed in the student's file. See Appendix L

Clinical Competency Units

COMPETENCY UNIT I

During the first clinical rotation (the clinical course RDLT-1290) the radiologic technology students are required to complete Competency Unit I. Following the completion of this unit, the student will be able to demonstrate competent performance in the following areas: computer radiography, office, transportation, and radiographic room.

The main objective of Competency Unit 1 is to orient the student to the different areas of the radiology department.

The student will spend a minimum of eight (8) hours of clinical education in each of these areas. Upon completion of each rotation, the student will be evaluated on his/her knowledge of the following objectives using the appropriate found on line in the *Trajecsys.com* web site or on a paper form supplied by the program. The forms should be completed by the Clinical Instructor. See Appendix H

All students must complete each competency in the clinical setting to continue in the clinical experience.

Competency Unit - 1 - Radiology Orientation

Following the completion of this unit, the student will be able to demonstrate competent performance in the following areas: computed radiography/radiographic darkroom, office, transportation, and radiographic room.

The main objective of Competency Unit 1 is to orient the student to the different areas of the radiology department.

The student will spend a minimum of eight (8) hours of clinical education in each of these areas. Upon completion of each rotation, the student will be evaluated on his/her knowledge of the following objectives using the appropriate checklist in the *Trajecsys.com* web site or on a paper checklist supplied by the program.

- A. Digital/Computed Radiography
The student will be able to fulfill all parts of the checklist associated with this competency and turn it in to the clinical coordinator.
- C. Office
The student will be able to fulfill all parts of the checklist associated with this competency and turn it in to the clinical coordinator.
- D. Transportation
The student will be able to fulfill all parts of the checklist associated with this competency and turn it in to the clinical coordinator.
- E. Radiographic Equipment

The student will be able to correctly identify and/or operate the radiographic equipment to include:

1. Properly turning x-ray machine on/off.
2. Setting exposure factors: mA, time, kV, AEC.
3. Operating all tabletop controls and tube locks.
4. Changing image receptors in the Bucky tray.
5. Collimation devices.

Competency Units 2-8

Students must demonstrate competence in all 6 patient care activities listed in the Competency Evaluation Checklist, in all 37 procedures identified as mandatory, and 18 of the 34 standard procedures. Students must perform at least **one** of the 18 standard procedures from the head section. Students must also perform **two** standard fluoroscopy procedures - including an upper GI **or** barium enema, plus one other standard from the fluoroscopy section as a part of the 18 standards. All procedures must be performed under direct supervision of a Registered Radiographer and documented by the Clinical Instructor.

Mandatory and Standard Competency Evaluations may only be completed following coverage of the procedure/topic in class and after the lab practicum. All required number of evaluations must be completed prior to graduation. See Appendix Q and R.

Clinical Objectives for Evening Rotations

The intent of scheduling students for an evening rotation is to provide learning experiences and opportunities not readily available during regularly scheduled clinical hours. For example, students are more likely to play an involved role in the radiography of traumatized patients during an evening rotation. Such experience serves to increase the student's sense of responsibility and self-confidence.

Evening rotations can enhance and complement clinical instruction and serve as an important complement clinical instruction and serve as an important component of the curriculum. Therefore, the general objectives for evening rotations are as follows:

1. Acquaint the student in a more direct role with the care, handling and radiography of traumatized or other non-routine patients.
2. Learn to work quickly and efficiently when dealing with emergency cases.
3. Utilize good judgment and adaptability in performing procedures on difficult patients.
4. Gain more experience in critiquing radiographs and determining whether they are diagnostically acceptable.
5. Learn to work well with different employees and supervisors.
6. Increase student confidence in their abilities to perform all radiographic procedures.

Guidelines for Evening Rotations

An evening rotation must be completed during the students' last clinical semester, RDLT 2390.

1. Hours for evening rotations will be **1:30p.m.-9:00 p.m.**
2. Only one student per hospital will be assigned on evenings each day.
3. Evening rotations will be scheduled by the clinical instructor of each affiliate after consultation with the clinical coordinator.
4. A minimum of one evening rotation must be completed prior to graduation.

Student Orientation Policy

At the beginning of each new clinical rotation the student must be oriented to the Radiology Department of the affiliate hospital by the Clinical Instructor (or designee), using the criteria on the “Student Orientation Checklist.” After the orientation, the student will be able to perform the tasks listed on the “Student Orientation Checklist,” and the checklist should be completed by the third week of the semester on-line at the *Trajecsys.com* web site or in paper form returned to the Clinical Coordinator. This is to ensure that every student is familiar with the different areas and emergency procedures/equipment of each department. Please see Appendix G

Specialty Area Clinical Rotations

During the last two clinical rotations (RDLT-2290 & 2390) Radiologic Technology Program students can begin rotations through the specialty areas listed below. Students are required to complete rotations through these areas prior to graduation. Students are required to spend a minimum of one clinical day (eight [8] hours) in each of the following specialty areas prior to graduation.

Computed Tomography
Diagnostic Medical Sonography
Radiation Therapy
Magnetic Resonance Imaging
Nuclear Medicine
*Mammography

Students must return the appropriate completed checklist from each area to the clinical coordinator upon completion of the rotation.

**Mammography is an additional clinical rotation not offered by all clinical affiliates and is not required as a modality rotation by the Radiologic Technology Program. If students would like to be provided a rotation in Mammography, the student should first ask their clinical site for permission. If permission is granted, the student can observe in Mammography. However, if permission is not granted, the student can see the Clinical Coordinator to try to find a clinical affiliate that allows observations in Mammography (if available). There is not a checklist to be completed for Mammography because it is not a required rotation for graduation.*

Please see Appendix I

Competency Evaluation Monitoring

The competency evaluation checklist is available to each student in the *Trajecsys.com* web site. This information is available by logging into the web site and reviewing your personal section. Radiologic Technology Program Faculty and your Clinical Instructors(s) at your current clinical site have access to your *Trajecsys.com* web site to monitor your progress and complete evaluations. You may request a check-list from the clinical coordinator if you want to document your progress using a paper document.

For most of the Mandatory Competency Evaluations students are required to observe, then assist with the examination prior to performing the competency procedure. The completion of the competency should be performed under the direct supervision of the Clinical Instructor or his/her designated Registered Radiographer. Some of the procedures that are not performed often require the student assist with the exam prior to performing a competency on the examination. The date the observation, assisting, and competency was performed should be entered on the checklists.

Standard Competencies can be performed under the direct supervision of a staff radiographer. Standard Competencies do not require the student observe then assist prior to performing the competency.

Students who do not have access to the internet at their clinical site can monitor their progress at home or the university. The Clinical Coordinator will document the competencies as they are turned in.

Please see Appendix T

Magnetic Resonance Imaging Safety Protocol-Addendum

Students enrolled in the Radiologic Technology Program are required to perform an eight-hour observation in Magnetic Resonance Imaging (MRI). The program has adopted a screening protocol to ensure proper safety practices for students during the time they may interact with MR Imaging. Students will be screened at the beginning of the second semester of the program (before clinical rotation assignments begin) by the clinical coordinator using “The Safety Screening Form for MR procedures” accepted by the American College of Radiology (ACR). Students will not be permitted to enter the clinical experience portion of their education without completing the required screening protocol. Additionally, students are provided education about MR safety in the fifth semester of the program during RLDT 2260. If questions on the screening protocol change at any time during the student’s education, it is required to inform program faculty.

In addition to the screening provided by Shawnee State University, some clinical affiliates may perform additional screening per the facility’s individual protocol. The student will be aware of the screening protocol both by the Radiologic Technology Program and the individual clinical affiliate.

The form can be in Appendix J and found at: <https://www.acr.org/-/media/ACR/Files/Radiology-Safety/MR-Safety/MR-Safety-Screening-Form.pdf?la=en>

Incident Reporting

To ensure the safety of our students, patients and hospital staff the Radiologic Technology Program uses forms to report incidents that may occur at the University or within its clinical affiliates. The incident reporting forms are located in the clinical handbook and available to the student at the beginning of their clinical experience.

The following are incident reports available:

- **Incident Report**
- **Critical Incident Report**
- **Action Plan**

The **Incident Report** and **Critical Incident Report** encompass events that could occur within the University or clinical setting. The report that will be completed, will be based on the severity of the event and left to the discretion of the Program Faculty and/or Clinical Instructor. If an incident occurs, an **Incident Report** or **Critical Incident Report** will be completed which includes a description of the event. Students may make comments about the incident on the report and signatures from Program Faculty/Clinical Instructor and the student are required. Program Faculty may also require an **Action Plan** (see description) which will be indicated at the bottom of the form.

The events leading to an **Incident Report** may include, but are not limited to the following:

Excessive tardiness
Excessive absenteeism
Dress code violations (clinical)
Integrity/Insubordination
Technical/Communication skills
*Academic misconduct
*HIPAA violations
*Patient Safety (clinical)
Anything outside the "Expected Behavior"

See Appendix M

A **Critical Incident Report** may result in automatic dismissal from the Radiologic Technology Program. The events leading to a **Critical Incident Report** may include, but are not limited to the following:

Academic misconduct
HIPAA violations
Patient Safety
Drug test failure

See Appendix N

*Incident reporting is based on the discretion of Program Faculty. These events may lead to further disciplinary action, including probation or dismissal from the Radiologic Technology Program.

Incident Reporting (Continued)

Following an Incident Report or Critical Incident Report, an **Action Plan** will be indicated at the bottom of the incident report if deemed necessary by Program Faculty. The action plan should describe the student's plan of action that will rectify the event/behavior that led to the incident report. The student should be specific in his/her plan of action to ensure the event/behavior does not occur again. The student and Program Faculty will provide signatures to indicate completion. See Appendix O.

If an action plan is required, the student has seven (7) to complete the action plan and return to Program Faculty. If the action plan is not submitted or submitted late, the student will be put on probation and will still be required to complete the action plan in an additional seven (7) days. If the student fails to complete the required action plan within the given fourteen (14) days, the student will be dismissed from the Radiologic Technology Program.

If a student receives three **Incident Reports** during the didactic, lab or clinical education it will lead to dismissal from the Radiologic Technology Program. In addition, if the student receives one, maximum two **Critical Incident Reports**, he/she could be automatically be dismissed from the Radiologic Technology Program (discretion of Program Faculty).

Financial Responsibilities of the Student

The student is financially responsible for tuition and course fees throughout the duration of the two-year program. Items covered by course fees include, but are not limited to:

- First set of lead markers at the beginning of fall semester
- A radiation monitoring device (fetal badge also included when necessary)
- External testing sources (St. Catherine mock exams and Elsevier HESI exams)
- Equipment needed for laboratory instruction (tape, needles, etc)
- Paper used for printing or required projects

Items not covered by course fees include, but are **not limited to** and are the additional responsibility of the student:

- Uniforms to be worn during clinic, including shoes and lab coat (if desired)
- Additional lead markers
- Online reporting documentation for clinical purposes (trajecsyst.com)
- Drug testing required for clinical rotation
 - Requires fees associated with CastleBranch
- Vaccinations required for clinical rotation, including TB skin tests (2 step test is required for initial testing purposes)
 - Requires fees associated with CastleBranch
- CPR certification (initial and renewal)
- Textbooks required for courses, include Elsevier EAQ modules for second year
- Physical examinations required for clinical rotation
- Background checks required for clinical rotation
- Transportation to and from clinical assignment
- Laboratory required polo and khakis

Community Service

Community service and engagement is essential to the improvement of health and wellness to the population. The Radiologic Technology Program find community service to be an essential part of a student's success to allow an opportunity to be a positive influence on the community. Students enrolled in the Radiologic Technology Program will be required to complete ten (10) hours of community services during the duration of the two years enrolled in the program. The student can choose what type of community service that he/she would like to participate in, but it must be related to the health care field or the well-being of the community. The ten hours can be completed all at once or in smaller increments. Proof of community service hours must be provided to the Program Director prior to scheduled program completion. Proper documentation is found in Appendix E and must be filled out by the director of the community service event. Additionally, students must wear the program approved polo and khakis to the community service event.

See Appendix E

Transfer Policy

Students who request a transfer to the Radiologic Technology Program at Shawnee State University must submit the following:

- A letter of support from a faculty member from the previous institution.
- Transcripts from previous educational institutions.
- Any documentation required by the Program Director (competency completion, clinical hour documentation, etc)
- Syllabi from all radiography courses successfully completed (Grade of "C" or better.)

Students will be required to complete 51% of Radiologic Technology courses per JRCERT policy. Successful completion and awarded credit of radiography courses from any institution is considered a "C" or better. Transfer credit is awarded by the Program Director and is subject to change on a case-by-case basis. The Program Director will review each successful course and award credit accordingly. Students are required to follow all policies and procedures required by the current Program Handbook. Students are also required to complete the full curriculum of courses required by the Radiologic Technology program.

Transfer student may also be required to complete admission testing and/or laboratory assignments to ensure competency. A course by arrangement is required in these cases. The student must accept the financial responsibility of this course and ensure completion. It is of the discretion of the Program Director and Clinical Coordinator to administer the assignments and grant approval of acceptance based on the completion of required standards.

COVID-19 Pandemic Disclosure

All of the above policies and procedures are current to the Radiologic Technology Program and are the expectations for the graduates of 2022. However, due to the changes surrounding the COVID-19 pandemic, it is important for the student to understand that policies may change or be amended to maintain requirements provided by SSU and clinical affiliates. Clinical sites, rotations, and clinical hours are subject to change during the pandemic crisis. It is the responsibility of the student to complete all the requirements outlined by this handbook to graduate from the Radiologic Technology program in May of 2022.

Laboratory and classroom restrictions may also be in place and it is important for the student to understand that it is his/her responsibility to complete all required assignments during the didactic portion of the program. Students will have requirements to use personal protective equipment and maintain a six-foot distance in the classroom and laboratory assignments. Additionally, students will be asked questions regarding their health surrounding the COVID-19 virus before entering the laboratory and classroom. It is required by the student to answer truthfully and abide by all restrictions set forth by the program and university for the health and wellness of both students and faculty. The temperature of each student will also be recorded before laboratory or classroom instruction can begin (recorded temperature must be below 100.4°). If a student is showing signs or symptoms of the COVID-19 virus, the student will not be allowed admittance and will have to show proof of a negative COVID-19 test and doctor's excuse.

Furthermore, it is the responsibility of each student to abide by all restrictions and precautions specified by the clinical affiliates. It is the right of the clinical affiliate to ask a student to leave if policies are not followed. Please note that each clinical affiliate requirements may differ.

Please understand that it is the responsibility of the program and university to ensure the safety of all students, visitors and faculty during these difficult times. It is the responsibility of the student to abide by policies and procedures for successful completion of the Radiologic Technology Program.



Acknowledgement of Review of Student Program Handbook for the Radiologic Technology Program

I have read and been informed of the content, requirements, and expectations stated in the Radiologic Technology Program Student Handbook. I have received a copy of the handbook and agree to abide by the policy guidelines as a condition of my status as a student in the Radiologic Technology Program at Shawnee State University.

I understand that if I have any questions, at any time, regarding the student handbook, I will consult with the Program Director.

I also understand, that at any time during the duration of my time spent in the Radiologic Technology Program, that if I do not abide by the policy guidelines, I may be placed on probation, receive an incident report, or be dismissed from the Radiologic Technology Program.

Name: _____ SSU ID #: _____

Check the following boxes for acknowledgement:

☐ I have read and been informed of the Radiologic Technology Student Handbook.

☐ I agree to abide by the policy guidelines of the Student Handbook.

Student signature

Date

Appendix B



Student Hepatitis B Vaccine Declination

I understand that due to my educational exposure to blood or other potentially infectious materials I may be at risk of acquiring hepatitis B virus (HBV) infection. I have been given information concerning the availability of the hepatitis B vaccine and the risk I take in choosing not to be vaccinated. However, I decline to obtain the hepatitis B vaccination at this time. I understand that by declining to be vaccinated, I continue to be at risk of acquiring hepatitis B, a serious disease. If in the future I continue to have educational exposure to blood or other potentially infectious materials and I want to be vaccinated with hepatitis B vaccine, I can receive information on its availability.

Student's Name (Please Print)

Student's Signature

Program of Study

Date

Please indicate your reason for refusing the hepatitis B vaccine at this time:

_____ I have had the disease. (Documentation required)

_____ I was vaccinated prior to entry into SSU's program and have provided SSU with a vaccination record. (Documentation required)

_____ Medical reasons contraindicate my receipt of the vaccine.
(Documentation required)

_____ Other. (Explanation required) _____



Radiologic Technology Program

PETITION OF READMISSION

Name _____ Date _____

SSU Identification Number _____

Address _____

City _____ State _____

Zip Code _____ Phone _____

.....
**Please submit completed form to the Program Director's Office, Room 222, Health
Science Building.**
.....

Please state whether you withdrew or were dismissed from the program.

Identify the probable factors or reason(s) that you feel had a bearing on your dismissal
or withdrawal from the Radiography Program:

State the actions or steps you have taken or that have occurred that will allow you to
successfully complete the Radiography Program.

Why do you feel a favorable decision should be made on your petition? State the
reason(s) and/or justification why you feel you should be readmitted:

Appendix D

SHAWNEE STATE UNIVERSITY RADIOLOGIC TECHNOLOGY PROGRAM

940 Second Street
Portsmouth, Ohio 45662

Date

A. CONFIDENTIAL MEDICAL RECORD (to be filled out by student)

Name _____

Address _____
Street City, State Zip Code

Telephone (____) _____ Date of Birth _____

Marital Status _____ Male _____ Female

Personal Health History (check items that apply)

_____ Tuberculosis	_____ Cancer
_____ Heart Disease/Defect	_____ Kidney Disease
_____ Diabetes	_____ Back Injury/Defect
_____ Allergies	_____ Hypertension
_____ Epilepsy	_____ Blood Disorders
_____ Glaucoma	_____ Dermatitis
_____ Gastrointestinal Disorder	

Operations or Serious Injuries (if any) _____

Are you currently receiving medication or treatment? Please indicate. _____

Would you say that your present health is:

_____ Excellent _____ Good _____ Fair _____ Poor

Are you presently under the care of a physician? _____ Yes _____ No

If yes, please explain. _____

Have you received treatment for an emotional or nervous disturbance?

_____ Yes _____ No

If yes, please explain. _____

B. PHYSICAL EXAMINATION (to be filled out by physician or nurse practitioner)

_____ Height _____ Weight _____ Pulse _____ B.P.

Near Vision: Right _____ Left _____

Distant Vision: Right _____ Left _____

Hearing: Right _____ Left _____

Assessment: (Use check mark for normal; NE for not examined; A for abnormal)

Skin	_____	Thorax and Back	_____
ENT	_____	Lungs	_____
Teeth	_____	Heart	_____
Neck	_____	Abdomen	_____
Neurological	_____		
Extremities	_____		

C. TESTS (Please attach or forward official reports of these tests to the address below.)

1. 2-Step Mantoux Only

D. IMMUNIZATIONS

BOOSTER

Varicella Dates: _____

D.P.T. Dates: _____

Polio Dates: _____

MMR (check one) _____ (had disease) _____ (immunization) _____ Positive titre
(date) (date) (date)

Tetanus date _____ (Booster required if last test was more than 5 years ago.)

Hepatitis Vaccine/Screen **STRONGLY** Recommended Date _____

REMARKS: _____

Date _____

Signature of Examining Physician

Physician: Please return this form to:

**Director of Radiologic Technology
Shawnee State University
940 Second Street
Portsmouth, OH 45662**

NOTE: Must be received by the end of Summer Semester Classes.

Appendix E



Date: _____

This is to verify that _____ (student name) has
completed _____ hours of community service with

(organization/event).

Signature & Title: _____

Contact information: _____
(email/phone)

Thank you for allowing our program to service your organization.

Sincerely,
Shawnee State University
Radiologic Technology Program Faculty

The miracle is not
that we do this work,
but that we are
happy to do it.
Mother Teresa

Appendix F

ACKNOWLEDGEMENT, INDEMNIFICATION AND RELEASE ACADEMIC FIELD TRIPS

Student's Name

ACADEMIC Course No. and Name:

I understand that this academic course includes at least one required field trip. *I acknowledge that the field trip requirement was identified at the time I enrolled for the course.* I acknowledge and understand the following:

- There are inherent risks and hazards that may arise from participation in the field trip events, including travel to and from each field trip site. I understand that the field trip will involve [hiking trails and paths over rough and sometimes steep and rocky terrain] I acknowledge that my participation may result in injury, damage or loss of property and/or loss of life.
- *I understand that I will be responsible for transportation to and from the field trip site.*
- Shawnee State University ("SSU") is not legally responsible for my personal safety or safety of my property during any travel, whether transportation is provided by SSU or not, or at any of the field trip sites.
- SSU does not provide health insurance coverage or personal injury or property insurance coverage to students for this academic course and that I am responsible for obtaining personal health insurance coverage through a private insurer.

I further state:

- I am not aware of any health related or medical reason why I should not participate in the Activity.
- I will conduct myself in a responsible manner and will follow all identified safety procedures and instructions

In consideration for participation in this Activity, I, for myself, my executors, administrators, and assigns, release and forever discharge SSU and its Board of Trustees, officers, employees and agents from all claims of losses, damages, injuries or costs, and any actions whatever, including, but not limited to, those based on negligence, in any manner arising out of my participation in this Activity. I understand that this Release means that, among other things, I am giving up my right to sue Shawnee State University for any such losses, damages, injuries, or costs that I may occur.

I have carefully read this agreement and understand it to be a release of all claims and causes of action for my injury or death or damage to my property that occurs while participating in the described Activity and it obligates me to indemnify the parties named for any liability for injury or death of any person and damage to property caused by my negligent or intentional act or omission.

Signature

Date

Printed Name

IF PARTICIPANT IS UNDER 18 YEARS OLD

I hereby release and forever discharge SSU, its Board of Trustees, officers, employees and agents against any claim by on or on behalf of the participant as a result of Participant's participation in the Activity. I further warrant that I am authorized to sign the form on behalf of the participant.

Signature

Date

Name of Parent/Guardian

Name of Student

Student Orientation Checklist

Student: _____ Date: _____

Hospital: _____ Semester: _____

INSTRUCTIONS: The clinical supervisor and/or designee will use the following criteria to orient the student to the Radiology Department, equipment and hospital facilities during the first week of each new clinical rotation. Upon the completion of the orientation, the supervisor will use the checklist to evaluate the student's performance on the tasks listed below. The checklist should be returned to the clinical coordinator or filled out on trajecys.com

PLACE A **Y** FOR YES, **N** FOR NO.

A. The student will be able to locate:

1. patient room. _____
2. other hospital departments, (OR, ER, etc.). _____
3. wheelchairs, carts, linen and supply areas. _____
4. patient waiting areas and dressing rooms. _____
5. front desk and film filing areas (if applicable). _____

B. The student will be able to locate and become familiar with the following emergency equipment and procedures:

1. emergency telephone numbers. _____
2. crash cart and/or emergency drugs. _____
3. defibrillator, ambu bag, ET tubes. _____
4. oxygen, ammonia inhalants, blood pressure cuffs. _____
5. fire extinguishers. _____
6. emergency procedures. _____

C. The student will be able to locate and become familiar with the use and operation of the radiographic equipment in the following areas:

1. diagnostic radiography. _____
2. fluoroscopy. _____
3. portable radiography. _____
4. surgery. _____

D. The student will become familiar with the department's radiographic routines for the various radiographic examinations. _____

Technologist's
Signature _____

Appendix H

Competency Unit I

DIGITAL OR COMPUTED RADIOGRAPHY CHECKLIST

Student: _____ Date: _____

Clinical Site: _____ Semester: _____

Instructions: The clinical instructor and/or radiologic technologist should use the following criteria to orient the student to the Computed/Digital Radiography System. Upon completion of the orientation, the supervisor will use the checklist to evaluate the student's performance on the tasks listed below. The checklist should be returned to the clinical coordinator or can be filled out on trajecs.com

Place a **Y** for yes, **N** for No.

The student will be able to:

1. Log on to the Radiography Information System. _____
2. Enter patient information manually or by bar code reader prior to or following the examination. _____
3. Prepare an image receptor for a specific radiographic examination. _____
4. Demonstrate the proper placement and centering of the body part in relation to the Image Receptor. _____

Following the radiographic exposure:

5. Place the imaging receptor into the plate reader (if applicable). _____
6. Identify problems with the image reader (if applicable). _____
7. Demonstrate the use of the processing station to review radiographic image as listed below:
 - a. Adjust brightness _____
 - b. Adjust contrast _____
 - c. Annotate the image as needed _____
 - d. Evaluate image for over or under exposure _____
 - e. Archive the processed image _____
 - f. Send the image to appropriate station for review by a physician _____
 - g. Print image as needed _____
8. Replace imaging plate in proper storage areas. _____

Evaluator's Signature _____

Competency Unit I

OFFICE CHECKLIST

Student: _____ Date: _____

Clinical Site: _____ Semester: _____

Instructions: The clinical supervisor and/or office personnel should use the following criteria to orient the student to the office. Upon completion of the orientation, the supervisor will use the checklist to evaluate the student's performance on the tasks listed below. The checklist should be returned to the clinical coordinator to be placed in the student's clinical file.

Place a **Y** for yes, **N** for No.

The student will be able to:

1. Demonstrate professional usage of the telephone. _____
2. Perform the necessary handling of an x-ray exam requisition. _____
3. Observe the following office procedures:
 - a. checking/logging in patients. _____
 - b. assigning/recording hospital or radiology department numbers. _____
5. File/retrieve film jackets (if applicable), requisitions, or previous images on PACS. _____
6. Give clear oral instructions to ambulatory patient about dressing/undressing for exams, where the dressing rooms are located, where to be seated. _____

Evaluator's Signature: _____

Competency Unit I

TRANSPORTATION CHECKLIST

Student: _____ Date: _____

Clinical Site: _____ Semester: _____

Instructions: The clinical supervisor and/or transportation personnel should use the following criteria to orient the student to transportation procedures. Upon completion of the orientation, the supervisor will use the checklist to evaluate the student's performance on the tasks listed below. The checklist should be returned to the clinical coordinator or completed on trajecys.com

Place a **Y** for Yes, **N** for No.

The student will be able to:

1. Locate patient rooms. _____
2. Locate where the wheelchairs and carts are located in the department. _____
3. Locate patient waiting areas. _____
4. Determine a patient's mode of travel according to the radiologic requisition. _____
5. Safely maneuver a wheelchair and cart both with and without a patient. _____
6. Issue appropriate information to nursing stations upon attaining or returning patients. _____
7. Safely move patients in and out of wheelchairs/carts. _____
8. Notify the appropriate radiology personnel upon arrival with the patient in the radiology department. _____
9. Demonstrate concern for the patient's safety, comfort, dignity and privacy during transportation of the patient to the radiology department. _____

Evaluator's Signature: _____

Competency Unit I

RADIOGRAPHIC EQUIPMENT CHECKLIST

Student: _____ Date: _____

Clinical Site: _____ Semester: _____

Instructions: The clinical supervisor and/or designee should use the following criteria to orient the student to the radiographic equipment. Upon completion of the orientation, the supervisor will use the checklist to evaluate the student's performance on the tasks listed below. The checklist should be returned to the clinical coordinator or completed on trajecsys.com

The student will be able to:

Place a **Y** for yes, **N** for No.

- | | |
|--|-------|
| 1. Identify various cassette sizes (if applicable). | _____ |
| 2. Turn on/off x-ray machine. | _____ |
| 3. Move x-ray tube lengthwise, vertically, transversely. | _____ |
| 4. Angle and rotate x-ray tube. | _____ |
| 5. Identify and use S.I.D. (Source to Image Distance) indicator. | _____ |
| 6. Master PBL (Positive Beam Limitation) controls. | _____ |
| 7. Identify and use collimator control knobs. | _____ |
| 8. Move tabletop in four directions. | _____ |
| 9. Align tube with table. | _____ |
| 10. Load bucky tray with image receptor. | _____ |
| 11. Change cassettes in bucky tray. | _____ |
| 12. Move bucky tray. | _____ |
| 13. Align x-ray tube with bucky tray. | _____ |
| 14. Identify chest (upright) unit. | _____ |
| 15. Vary height of chest unit. | _____ |
| 16. Align tube with chest unit. | _____ |
| 17. Load and change image receptors in chest unit (if applicable). | _____ |
| 18. Locate technique charts. | _____ |
| 19. Set a technique (using mA, time, kV, AEC). | _____ |
| 20. Make an exposure. | _____ |

Evaluators signature: _____

Appendix I
Modality Rotation Checklists

COMPUTED TOMOGRAPHY CHECKLIST

Student: _____

Date: _____

Hospital: _____ Semester: _____

INSTRUCTIONS: The CT technologist should use the following criteria to orient the student to CT procedures. Upon completion of the student's rotation, the technologist should use the checklist to indicate the student's performance or participation in the areas listed. The checklist must be returned to the clinical coordinator or filled out on trajecys.com

Place a **Y** for yes, **N** for no

After completion of the student's rotation through CT, the student will be able to*:

1. Review patient's clinical history/requisition _____
2. Observe preparation of appropriate contrast media _____
3. Communicate exam instructions to patient _____
4. Observe positioning of a patient for CT examinations of the head, and thorax or abdomen _____
5. Identify and operate CT gantry, table, localizing lights _____
6. Observe the operation the CT control console to include:
 - a. startup of unit/test scanning of phantoms _____
 - b. selection of window level/width _____
 - c. selection of matrix size, technique factors _____
 - d. selection of slice thickness and filters _____
 - e. initiating scan sequence _____
7. Observe proper filming sequence of the CT images _____
8. Differentiate between pixel, voxel _____
9. Identify basic anatomy on CT images of the head, thorax and abdomen _____

Technologist's

Comments: _____

Technologist Signature: _____ Date: _____

*Under the direct supervision of a CT technologist.

DIAGNOSTIC MEDICAL SONOGRAPHY CHECKLIST

Student: _____

Date: _____

Hospital: _____ Semester: _____

INSTRUCTIONS: The ultrasound technologist should use the following criteria to orient the student to ultrasound. Upon completion of the student's rotation, the technologist should use this checklist to indicate the student's performance or participation in the areas listed. The checklist must be returned to the clinical coordinator or completed on trajecys.com.

Place a **Y** for yes or a **N** for no

After completion of the student's rotation through ultrasound, the student will be able to*:

1. Become familiar with the history of ultrasound _____
2. Describe the physical principles of ultrasound to include: _____
 - a. ultrasonic waves, imaging principles _____
 - b. imaging modes _____
 - c. transducers _____
 - d. resolution, frequency _____
 - e. doppler effect/spectral analysis _____
3. Operate the ultrasound machine _____
4. Observe basic scans, exams to include: _____
 - a. longitudinal and transverse scans _____
5. Identify basic cross-sectional anatomy _____
6. Identify cystic structures: _____
 - a. no internal echoes, posterior wall, enhancement _____
7. Identify common diseases/conditions demonstrated by ultrasound _____
8. Recognize artifacts (gas, adipose tissue, etc.) _____
9. List indications for various exams _____
10. Describe patient preparation/scheduling for exams _____
11. Obtain patient history/give proper _____
12. Complete necessary paperwork _____

Technologist's

Comments: _____

Sonographer's Signature: _____ Date: _____

*Under the direct supervision of a Diagnostic Medical Sonographer.

RADIATION THERAPY CHECKLIST

Student: _____

Date: _____

Hospital: _____

Semester: _____

INSTRUCTIONS: The radiation therapy technologist should use the following criteria to orient the student to radiation therapy procedures. Upon completion of the student's rotation, the technologist should use the checklist to indicate the student's performance or participation in the areas listed. The checklist must be returned to the clinical coordinator or completed on trajecsys.com.

Place a **Y** for yes or a **N** for no

After completion of the student's rotation through radiation therapy, the student will be able to*:

1. Review patient's chart _____
2. Review patient's radiographs (when pertinent) _____
3. Observe operation of radiation therapy equipment to include: _____
 - a. collimator light
 - b. distance light
 - c. table
 - d. other controls
4. Assist in preparing patient for treatment _____
5. Observe the technologist mark/locate area of treatment _____
6. Observe preparation of radiation therapy machine for treatment _____
7. Observe the use of calibration charts and dose charts _____
8. Assist in taking port films with radiation therapy unit or radiographs of patient in radiology department when necessary _____
9. Assist with patient checkup _____
10. Attend to patient's safety and comfort _____
11. Assist in necessary paperwork completion _____

Technologist's

Comments: _____

Technologist's Signature: _____

Date: _____

* Under the direct supervision of a radiation therapy technologist.

NUCLEAR MEDICINE CHECKLIST

Student: _____ Dates: _____

Hospital: _____

Semester: _____

INSTRUCTIONS: The nuclear medicine technologist should use the following criteria to orient the student to nuclear medicine procedures. Upon completion of the student's rotation, the technologist should use this checklist to indicate the student's performance or participation in the areas listed. The checklist must be returned to the clinical coordinator or completed on trajecsys.com.

Place a **Y** for yes or **N** for no

After completion of the student's rotation through nuclear medicine, the student will be able to:

1. Maintain appropriate records _____
2. Become familiar with the hot lab, to include _____
 - a. operating generator
 - b. mixing kits
 - c. identifying appropriate radionuclides and the exams they are used for
 - d. follow radiation safety standards
3. Observe operation of the camera _____
4. Assist in changing collimators _____
5. Observe the operation of the nuclear medicine console _____
 - a. select appropriate exposure factors
 - b. properly film the images
6. Assist in performing computer studies _____
 - a. data acquisition
 - b. processing
7. Identify the indications for, and the starting position of the patient for the following exams:
 - a. bone scans _____
 - b. liver/spleen scans _____
 - c. lung scans _____
 - d. thyroid scans _____
 - e. others _____

Technologist's Comments: _____

Technologist's Signature: _____ Date: _____

*Under the direct supervision of a nuclear medicine technologist.

MAGNETIC RESONANCE IMAGING CHECKLIST

Student: _____

Date: _____

Hospital: _____

Semester: _____

INSTRUCTIONS: The MRI technologist should use the following criteria to orient the student to the Magnetic Resonance Imaging Department. Upon completion of the student's clinical rotation, the technologist should use this checklist to indicate the student's performance or participation to the areas listed. The checklist must be returned to the clinical coordinator or completed on trajecs.com

Place a **Y** for yes or **N** for no

After completion of the student's rotation through MRI, the student will be able to:

1. Possess a basic understanding of how MRI is different from radiography or CT: _____
2. Describe the principles of MRI to include:
 - a. The size and type of magnet: _____
 - b. Radiofrequency Wave generation: _____
 - c. RF coils: _____
3. Evaluate MRI procedure request: _____
4. Assist in screening patients for safety and explain why screening is important: _____
5. Assist with changing coils and room preparation: _____
6. Observe the setting of scan parameters and assist as needed: _____
7. Process patient request: _____
8. Observe archiving and archive retrieval of images for processing: _____
9. Identify basic cross-sectional anatomy: _____
10. Describe reasons an MRI imaging procedure would be preferred over another imaging modality: _____
11. Explain the use of contrast media in Magnetic Resonance Imaging: _____
12. Assist with patients as needed: _____

Technologists

comments: _____

Technologists signature: _____

Date: _____

Safety Screening Form for Magnetic Resonance (MR) Procedures

Date: _____

Name (first, middle, last): _____

Gender: ☐ Male ☐ Female Age: _____ Date of Birth: _____

Height: _____ Weight: _____

If uncertain of any answer below, please circle and leave blank to discuss with the technologist.

Why are you having this examination (medical problem)?

List current medications:

☐ None

☐ _____

List all allergies:

☐ None

☐ _____

Date of last menstrual period _____

☐ Yes ☐ No Is there a possibility that you are pregnant?

☐ Yes ☐ No Are you post-menopausal?

☐ Yes ☐ No Are you breast feeding?

Please indicate if you have or have not had any of the following:

• ☐ Yes ☐ No Previous MRI examination

Facility name and city: _____

Date of examination: _____

Body part imaging: _____ Reason for examination: _____

• ☐ Yes ☐ No Surgery or medical procedure of any kind

If yes, list all prior surgeries and approximate dates: _____

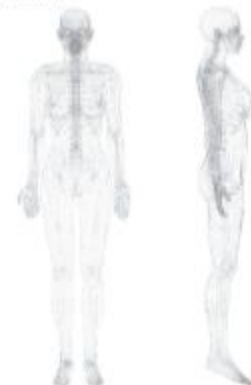
MR Hazard Checklist

Please mark the location of any implant, device or metallic foreign body inside your body or site of surgical operation.

Male:



Female:



Reference/Source: Konis's MagnetVision™ app, 2020.

Safety Screening for Magnetic Resonance (MR) Procedures

- ☐ Yes ☐ No Injury by a metal object or foreign body (e.g., bullet, BB, shrapnel)
If yes, explain: _____
- ☐ Yes ☐ No Injury to your eye from a metal object
☐ Yes ☐ No If yes, did you see medical assistance?
If yes, describe what was found: _____
- ☐ Yes ☐ No Foreign body removed from eye
If yes, describe what was taken out: _____
- ☐ Yes ☐ No Asthma or other allergic respiratory disease
- ☐ Yes ☐ No Kidney disease
- ☐ Yes ☐ No Diabetes
- ☐ Yes ☐ No Hypertension
- ☐ Yes ☐ No Previously received contrast agent (dye) for a CT, MRI or other X-ray or study
- ☐ Yes ☐ No Allergic reaction to CT, MRI, X-ray contrast agent (dye)
If yes, explain: _____
- ☐ Yes ☐ No Spinal fusion procedure
- ☐ Yes ☐ No Endoscopy or colonoscopy in last three months

The following items may be harmful to you during your MR scan and may interfere with the MR examination. You must provide a "Yes" or "No" answer for every item.

Please indicate if you CURRENTLY HAVE or HAVE EVER HAD any of the following:

Surgically implanted medical devices

- ☐ Yes ☐ No Any type of electronic, mechanical or magnetic implant
If yes, list type: _____
- ☐ Yes ☐ No Cardiac pacemaker, defibrillator or other cardiac implant (in place or removed)
- ☐ Yes ☐ No Aneurysm Clip
- ☐ Yes ☐ No Neurostimulator, diaphragmatic stimulator, deep brain stimulator, vagus nerve stimulator, bone growth stimulator, spinal cord stimulator, or any biostimulator (in-place or removed)
If yes, list type: _____
- ☐ Yes ☐ No Any type of internal electrodes or wires
- ☐ Yes ☐ No Cochlear implant
- ☐ Yes ☐ No Implanted drug pump (e.g., insulin, baclofen, chemotherapy, pain medicine)

Safety Screening for Magnetic Resonance (MR) Procedures

- ☐ Yes ☐ No Spinal fixation device
- ☐ Yes ☐ No Any type of coil, filter or stent
If yes, list type: _____
- ☐ Yes ☐ No Artificial heart valve
- ☐ Yes ☐ No Any type of ear implant
- ☐ Yes ☐ No Penile implant
- ☐ Yes ☐ No Artificial eye
- ☐ Yes ☐ No Eyelid spring and/or eyelid weight
- ☐ Yes ☐ No Any type of implant held in place by a magnet
- ☐ Yes ☐ No Any type of surgical clip or staple
- ☐ Yes ☐ No Any IV access port (e.g., Broviac, Port-a-Cath, Hickman, PICC line)
- ☐ Yes ☐ No Shunt
If yes, type: _____
- ☐ Yes ☐ No Artificial limb
If yes, what and where: _____
- ☐ Yes ☐ No Tissue Expander (e.g., breast)
- ☐ Yes ☐ No IUD
If yes, type: _____
- ☐ Yes ☐ No Surgical mesh
If yes, location: _____
- ☐ Yes ☐ No Radiation seeds
- ☐ Yes ☐ No Any implanted items (e.g., pins, rods, screws, nails, plates, wires)

Removable medical devices

- ☐ Yes ☐ No Hearing aid
- ☐ Yes ☐ No Removable drug pump (e.g., insulin, Baclofen, Neulasta)
- ☐ Yes ☐ No Any type of ear implant
- ☐ Yes ☐ No Artificial eye
- ☐ Yes ☐ No Any type of implant held in place by a magnet
- ☐ Yes ☐ No Any type of surgical clip or staple
- ☐ Yes ☐ No Medication patch (e.g., nitroglycerine, nicotine)
- ☐ Yes ☐ No Artificial limb

Safety Screening for Magnetic Resonance (MR) Procedures

If yes, what and where: _____

• ☐ Yes ☐ No Removable dentures, false teeth or partial plate

• ☐ Yes ☐ No Diaphragm, pessary

If yes, type: _____

• ☐ Yes ☐ No Have you recently ingested a "pill cam?"

If yes, date "pill cam" was ingested: _____

Personal

• ☐ Yes ☐ No Body piercings

If yes, location: _____

• ☐ Yes ☐ No Wig, hair implants

• ☐ Yes ☐ No Tattoos or tattooed liner

• ☐ Yes ☐ No Any hair accessories (e.g., bobby pins, barrettes, clips, extensions, weaves)

• ☐ Yes ☐ No Jewelry

• ☐ Yes ☐ No Metal-containing clothing material and/or underwear

• ☐ Yes ☐ No Magnetic cosmetics and hair care (e.g., magnetic eyelashes, magnetic nail polish)

• ☐ Yes ☐ No Electronic monitoring or tagging equipment (e.g., ankle monitor)

• ☐ Yes ☐ No Fitness tracker/biometer (e.g., Fitbit)

☐ Yes ☐ No Any other type of surgically implanted medical devices, removable medical devices or personal items not covered above?

If yes, type: _____

Instructions for Patients

1. You will be provided hearing protection during your scan. You are strongly urged to use the earplugs or headphones provided to you during your MR examination, since some patients find the noise levels unacceptable, and the noise levels may affect your hearing if these provided hearing protection devices are not utilized.
2. Remove all jewelry and piercings (e.g., necklaces, pins, rings)
3. Remove all body piercings
4. Remove all hair pins, bobby pins, barrettes, clips, etc.
5. Remove all dentures, false teeth, partial dental plates
6. Remove eyeglasses and hearing aids
7. Remove watches, cell phones and pagers
8. Remove all cards with magnetic strips (e.g., credit cards, bank cards, etc.)
9. Because some clothing may contain metal even when not apparent, the MR technologist will instruct you to remove all clothing and worn/removable items from your body. MR Safe clothing will be provided to you to wear during your MRI scan. This is being done to help ensure your safety during the examination.
10. If you are unable to remove any of the above items please notify the technologist.

I have read and understand the entire content of this form.

Patient signature: _____

MD/RN/RT signature: _____

MD/RN/RT printed name: _____

Date: _____

Appendix K

Dress Code Approval

The student will be required to obtain dress code approval before beginning the clinical experience. Once the student has approval from Program Faculty, the student will abide the dress code at all times during the clinical experience. Any violations will result in reduction in grade (see dress code policy). Any changes in the student's attire after the approval process, will need to be approved by the Clinical Coordinator. The following are need to be approved for proper dress for clinical experience:

Dress Code Item	Approve Y or N
Hair	
Jewelry	
Scrubs	
Lab Coat	
Shoes	
Identification	
OSL location	
Tattoos (if applicable)	

Additional Items	Approve Y or N

By signing the statement, the student agrees to abide by the clinical handbook dress code at all times during the clinical experience. Any changes in attire will need to approve by Clinical Coordinator.

Student: _____ Date: _____

By signing the statement, Program Faculty approve attire for student for clinical experience.

Program Faculty: _____ Date: _____

Appendix L



Student Name: _____

Radiologic Technology Program Clinical affiliate (if applicable): _____

Clinical Experience Advising Report

Goal:

Objectives:

Program Faculty Recommendation for Student Resources:

Student Action Plan for Improvement:

Program Faculty: _____ Date: _____

Student: _____ Date: _____

Action plan to be submitted within seven days of the advising session.

This section to be completed by program faculty:

Action Plan submitted on time: Y or N

Appendix M



Student Name: _____

Radiologic Technology Program Clinical Affiliate (if applicable): _____

Incident Report

Incident Note:

Student Comments (if any):

Program Faculty: _____ Date: _____

Student: _____ Date: _____

This section to be completed by program faculty:

Action Plan required: Y or N

- If yes, action plan must be submitted by student within seven days of date of incident.

Action Plan submitted on time: Y or N

Appendix N



Student Name: _____

Radiologic Technology Program

Clinical Affiliate: _____

Critical Incident Report

Incident Description (Clinical Instructor):

Program Faculty Recommendation:

Student Remarks:

Clinical Instructor: _____ Date: _____

Program Faculty: _____ Date: _____

Student: _____ Date: _____

This section to be completed by program faculty:

Action Plan required: Y or N

- If yes, action plan must be submitted by student within seven days of date of incident.

Action Plan submitted on time: Y or N

Shawnee State
UNIVERSITY

Radiologic Technology Program Clinical Affiliate (if applicable): _____

Incident Date: _____

[illegible]

Date: _____

Date: _____

Appendix P

Student Evaluation of Clinical Instruction

Clinical Affiliate _____ Semester/Year _____

Use the following code to respond to each of the following statements concerning the clinical education rotation.

SA	--	Strongly Agree
A	--	Agree
D	--	Disagree
SD	--	Strongly Disagree
N	--	No basis to judge

- SA A D SD N 1. The clinical instructor was receptive to the student's questions.
- SA A D SD N 2. The staff technologists were receptive to the student's questions.
- SA A D SD N 3. The clinical instructor displayed a good grasp of the subject matter and the clinical application of such.
- SA A D SD N 4. A radiologist was willing to answer student questions.
- SA A D SD N 5. The technologists attempted to give each student an opportunity to perform examinations.
- SA A D SD N 6. Technologists review the request for the radiographic examine to determine if you are able to perform the examination.
- SA A D SD N 7. Technologists are present in the room with you when repeat radiographic examinations are performed.
- SA A D SD N 8. Students were given the opportunity to complete the competency units needed for the semester.
- SA A D SD N 9. The competency units gave the student an understanding of what was expected in the clinical experience.
- SA A D SD N 10. The student attempted to achieve all the competency units for this clinical course.
- SA A D SD N 11. X-ray critiques and/or review sessions were a part of the clinical experience.
- SA A D SD N 12. If the students needed assistance, he/she received assistance promptly by the staff.
- SA A D SD N 13. The clinical instructor was interested in providing the student with instruction.
- SA A D SD N 14. The staff technologists were interested in providing the student with instruction.

MANDATORY COMPETENCY EVALUATION

The student is required to complete an assigned number of radiographic examinations for mandatory competency evaluation each semester **under the direct observation of the Clinical Instructor or the Program Faculty**. (Refer to the Semester Requirements for Clinical Education sections for requirements.) If the student repeats any part of the imaging procedure due to the student's error, the competency evaluation should be considered a failure and documented as such on the mandatory competency form. The student must repeat the mandatory competency procedure without error at a later date.

Receiving two or more failures on Mandatory Competency Evaluations will lower the students final clinical grade by five (5) percentage points. Each additional failure will lower the clinical grade by five (5) percentage points each.

MANDATORY COMPETENCY EVALUATION FORM

Student _____ Date _____ Patient ID Number _____

DIRECTIONS: Evaluate the student's performance according to the following criteria. Consideration should be given to the student's level of education and experience.

Criteria: Descriptions for each criteria are located on the back of this form.

Please note that a 4-Competent is considered a 100%-A score for any and all competencies.

5 = Exceeds Expectations (use for second year only, only if performance does exceed expectations)

4 = **Competent** (use for performance that is expected for a student in their experience level, i.e. 1st or 2nd year)

3 = Weak

2 = Very Weak

1 = Unacceptable

NA = Not Applicable

Exam: _____

Projections:

A _____

B _____

C _____

D _____

E _____

F _____

Patient Condition:

1. Ambulatory
2. Fair
3. Poor
4. Serious
5. Critical

1. Patient Care and Handling							
	A	B	C	D	E	F	Comments
2. Patient Instructions							
3. Correct Positioning of Part							
4. Correct Tube/Patient/IR Alignment							
5. Positioning Planes Used Correctly							
6. Equipment Manipulation							
7. Collimation							
8. Uses Appropriate Shielding							
9. Work Efficiency							

Image Evaluation

1. Anatomy Demonstrated and Centered							
2. Diagnostic Technique Demonstrated							
3. Patient Information/ Markers Visible							
4. Student Identification of Radiographs							

General Comments, Observations, Suggestions:

EVALUATION CRITERIA

5- Student performance Exceeds Expectations

- Student performed task with comfort, confidence and knowledge comparable to an entry-level radiographer.

4- Student performance demonstrates Competence

- Student performed task correctly, with no assistance of the evaluator. Task was completed with appropriate knowledge and confidence of a student radiographer.

3- Student performance is Weak

- Student performed task with minimal help from evaluator. Student shows need for improvement in skills and/or knowledge of task.

2- Student performance is Very Weak

- Student needed extensive assistance from evaluator to effectively complete task at an appropriate skill level of a student radiographer. Student shows excessive need for skill and/or knowledge development/remediation.

1- Student performance is Unacceptable

- Student could not complete task. Task resulted in a repeat exam or task was terminated by the evaluator. Student shows immediate need for skill/knowledge development/remediation.

N/A – Not applicable: The student assisted the radiologist or was not required to perform this component of the competency evaluation.

COMPETENCY EVALUATION CRITERIA

1. The student evaluated the requisition, identified the patient, called patient by name (Mr., Mrs., Ms., etc.), introduced self to the patient, assisted patient to the room, explained the procedure to the patient, checked for any contraindications to the exam.
2. The student communicated proper examination instructions to the patient, using appropriate language and limited use of slang, for each view of the radiographic examination.
3. The student positioned the patient correctly (AP, PA, Oblique, etc.).
4. The central ray angulation was correct, centered to the patient at the proper centering point and the image receptor was centered correctly.
5. The appropriate planes and baselines (i.e., MSP, OML) were correctly aligned to the image receptor.
6. The student correctly operated the radiographic equipment, tube/table controls, technic selection (kVp, mAs, AEC), SID, PBL.
7. The student effectively collimated the beam to the area of interest/image receptor size or used automatic collimation.
8. The student applied gonadal shielding (when appropriate).
9. The student demonstrated speed and accuracy in performing the examination in relation to the patient's condition.

IMAGE EVALUATION CRITERIA

1. The desired anatomical structures were demonstrated on the radiograph in their proper perspective.
2. The radiograph has an acceptable level of contrast and density.
3. The patient information and date, right and left markers, and procedural markers (i.e., hour, minute) are visible and correctly placed on the radiograph.
4. The student was able to identify the appropriate anatomy, answer questions, suggest improvements, and justify a repeat exposure (if necessary).

STANDARD COMPETENCY EVALUATION

The student is required to complete a required number of standard evaluations each semester (except during the clinical course RDLT-1290). The standard evaluation examinations can be completed **under the direct observation of a Registered Radiographer** in the clinical setting. Standard evaluations are evaluated on a pass/fail basis. If the student must repeat any part of the examination due to student error the evaluation will be considered a failure. The student must repeat the examination at a later date. Receiving three (3) failures on standard evaluations during the quarter will lower the final clinical grade by five (5) percentage points. Each additional failure will lower the clinical grade an additional five (5) percentage points.

If the student does not complete the required number of exams, their grade will be lowered in proportion to the percentage not completed.

STANDARD EVALUATION FORM

Student _____ Date _____ Hospital _____

Patient's ID Number _____ Examination _____

Criteria:

5- Exceeds Expectations

2- Very Weak

4- Competent

1- Unacceptable

3- Weak

N/A- Not Applicable

Patient's Transportation

Ambulatory _____

Stretcher _____

Wheelchair _____

Portable _____

To Be Completed By a Staff Technologist (Identify with N/A, 1-5 Scale):

1. The examination room was prepared properly and anticipated supplies were available. _____
2. Student communicated appropriately with the patient supplying correct directions and explaining the procedure. _____
3. The student positioned the patient accurately without causing unnecessary discomfort. _____
4. The student manipulated the radiographic equipment in a safe manner without forcing the locks. _____
5. The appropriate cassette size was selected for the part to be radiographed and the area of interest was centered the middle of the image receptor. _____
6. The student provided appropriate shielding to the patient and collimated the radiographic field to the correct size. _____
7. The proper exposure factors were selected that would result in diagnostic radiographs. _____

Radiographic Evaluation:

8. Adequate radiographic exposure was visualized. _____
9. Adequate radiographic dynamic range was visualized. _____
10. The visualized detail was adequate and distortion was minimal. _____
11. Proper Alignment: _____
 - Image receptor was centered to the body part being radiographed. _____
 - The patient is centered to the middle of the image receptor as needed. _____
 - Radiographic tube was centered to the patient and the image receptor. _____
12. The correct anatomical side marker was used and does not obscure essential anatomy. _____

Comments: _____

Technologist's Signature _____ Date _____

Student's Signature _____ Date _____

Appendix S

UNIVERSITY FACULTY PROCEDURAL EVALUATION FORM

Student _____ Date _____ Hospital _____

Evaluator _____ Exam _____

DIRECTIONS: Evaluate the student's performance according to the following criteria. Consideration should be given to the student's level of education and experience.

Criteria:

5- Exceeds Expectations
4- Competent
3- Weak
2- Very Weak
1- Unacceptable
NA = Not Applicable

Patient Condition:

1. Ambulatory
2. Fair
3. Poor
4. Serious
5. Critical

Projections:

A _____
B _____
C _____
D _____
E _____
F _____

1. Patient Care and Handling								
	A	B	C	D	E	F	Comments	
2. Patient Instructions								
3. Correct Position of Part								
4. Correct Tube-Patient-IR Alignment								
5. Positioning Planes Used /Used Correctly								
6. Equipment Manipulation								
7. Collimation								
8. Uses Appropriate Shielding								
9. Work Efficiency								

IMAGE EVALUATION

The student was able to identify/discuss/suggest improvements for the following:

	A	B	C	D	E	F	Comments
1. Anatomy Demonstrated and Centered							
2. Diagnostic Technique Adequate/Appropriate							
3. Radiographic Markers Visible							
4. Overall Image Quality							
5. Student Identification of Radiographs							

General Comments, Observations, or Recommendations:

Evaluator's Signature _____ Date _____

Student's Signature _____ Date _____

EVALUATION CRITERIA

5- Student performance Exceeds Expectations

- Student performed task with comfort, confidence and knowledge comparable to an entry-level radiographer.

4- Student performance demonstrates Competence

- Student performed task correctly, with no assistance of the evaluator. Task was completed with appropriate knowledge and confidence of a student radiographer.

3- Student performance is Weak

- Student performed task with minimal help from evaluator. Student shows need for improvement in skills and/or knowledge of task.

2- Student performance is Very Weak

- Student needed extensive assistance from evaluator to effectively complete task at an appropriate skill level of a student radiographer. Student shows excessive need for skill and/or knowledge development/remediation.

2- Student performance is Unacceptable

- Student could not complete task. Task resulted in a repeat exam or task was terminated by the evaluator. Student shows immediate need for skill/knowledge development/remediation.

N/A – Not applicable: The student assisted the radiologist or was not required to perform this component of the competency evaluation.

COMPETENCY EVALUATION CRITERIA

1. The student evaluated the requisition, identified the patient, called patient by name (Mr., Mrs., Ms., etc.), introduced self to the patient, assisted patient to the room, explained the procedure to the patient, checked for any contraindications to the exam.
2. The student communicated proper examination instructions to the patient, using appropriate language and limited use of slang, for each view of the radiographic examination.
3. The student positioned the patient correctly (AP, PA, Oblique, etc.).
4. The central ray angulation was correct, centered to the patient at the proper centering point and the image receptor was centered correctly.
5. The appropriate planes and baselines (i.e., MSP, OML) were correctly aligned to the image receptor.
6. The student correctly operated the radiographic equipment, tube/table controls, technic selection (kVp, mAs, AEC), SID, PBL.
7. The student effectively collimated the beam to the area of interest/IR size or used automatic collimation.
8. The student applied gonadal shielding (when appropriate).
9. The student demonstrated speed and accuracy in performing the examination in relation to the patient's condition.

IMAGE EVALUATION CRITERIA

1. Density controlling factors were properly selected as evident on the radiograph.
2. Contrast controlling factors were properly selected as evident on the radiograph.
3. Collimation is evident on all four sides of the radiograph (when appropriate).
4. The quality of the entire image meets acceptable standards.
5. The desired anatomical part is aligned appropriately with the IR.
6. Positioning of the part is appropriate as evident on the radiograph.
7. The patient information and date, right and left markers, and procedural markers (i.e., hour, minute) are visible and correctly placed on the radiograph.
8. The student was able to identify the appropriate anatomy, answer questions, suggest improvements, and justify a repeat exposure (if necessary).

Competency Evaluation Checklist

Students must demonstrate competence in all 6 patient care activities listed, in all 37 procedures identified as mandatory, and 18 of the 34 standard procedures. Students must perform at least one of the 18 standard procedures from the head section. Students must also perform two standard fluoroscopy procedures including an upper GI or barium enema, plus one other standard from the fluoroscopy section. All procedures must be performed under direct supervision by the clinical instructor.

Imaging Procedure	Mandatory or Standard		Date	Tech
	Mandatory	Standard		
Unit 2				
Chest and Thorax				
Chest Routine	✓			
Chest AP (Wheelchair or Stretcher)	✓			
Ribs	✓			
Chest Lateral Decubitus		✓		
Sternum		✓		
Upper airway (Soft-Tissue Neck)		✓		
Unit 3				
Abdomen				
Abdomen Supine (KUB)	✓			
Abdomen Upright	✓			
Abdomen Decubitus		✓		
Intravenous Urography		✓		
Unit 4				
Upper Extremity				
Thumb or Finger	✓			
Hand	✓			
Wrist	✓			
Forearm	✓			
Elbow	✓			
Humerus	✓			
Shoulder	✓			
Trauma Shoulder* (Scapular Y, Transthoracic or Axillary)	✓			
Clavicle	✓			
Scapula		✓		
AC Joints		✓		
Trauma: Upper Extremity* (Non-Shoulder)	✓			

*Trauma is considered a serious injury or shock to the body and requires modifications in positioning and monitoring of patient's condition (ARRT, 2019)

Unit 5	Mandatory	Standard	Date	Tech
Lower Extremity				
Toes		✓		
Foot	✓			
Ankle	✓			
Knee	✓			
Tibia/Fibula	✓			
Femur	✓			
Trauma: Lower Extremity*	✓			
Patella		✓		
Calcaneus		✓		
Unit 6				
Head (Must select at least one from this selection)				
Skull		✓		
Paranasal Sinuses		✓		
Facial Bones		✓		
Orbits		✓		
Zygomatic Arches		✓		
Nasal Bones		✓		
Mandible		✓		
Temporomandibular Joints		✓		
Unit 7				
Spine and Pelvis				
Cervical Spine	✓			
Cross-Table Spine (Patient Recumbent) (Horizontal Beam)	✓			
Thoracic Spine	✓			
Lumbar Spine	✓			
Pelvis	✓			
Hip	✓			
Cross-Table Lateral Hip (Patient Recumbent) (Horizontal Beam)	✓			
Sacrum and/or Coccyx		✓		
Scoliosis Series		✓		
Sacroiliac Joints		✓		

*Trauma is considered a serious injury or shock to the body and requires modifications in positioning and monitoring of patient's condition (ARRT, 2019)

Unit 8				
Fluoroscopy Studies (Must select either upper GI or barium enema plus one other standard from this section)				
Fluoroscopy, Mobile, Surgical, Special Procedures	Mandatory	Standard	Date	Tech
Upper GI Series (Single or Double Contrast)		✓		
Barium Enema (Single or Double Contrast)		✓		
Small Bowel Series		✓		
Esophagus		✓		
Cystography/Cystourethrography		✓		
ERCP		✓		
Myelography		✓		
Arthrography		✓		
Hysterosalpingography		✓		
Mobile C-Arm Studies				
C-Arm Procedure (Requiring manipulation to obtain more than one projection)	✓			
C-Arm Procedure (Requiring manipulation around a sterile field)	✓			
Mobile Studies				
Chest	✓			
Abdomen	✓			
Orthopedic	✓			
Pediatrics (Age 6 or Younger)				
Chest Routine	✓			
Upper Extremity		✓		
Lower Extremity		✓		
Abdomen		✓		
Mobile Study		✓		
Geriatric Patient (Physically or Cognitively Impaired as a Result of Aging)				
Chest Routine	✓			
Upper Extremity	✓			
Lower Extremity	✓			

	Mandatory	Standard	Date	Tech
General Patient Care Procedures				
CPR	✓			
Vital Signs (Blood Pressure, Pulse, Respiration, Temperature, Pulse Oximetry)	✓			
Sterile and Aseptic Technique	✓			
Venipuncture	✓			
Transfer of Patient	✓			
Care of Patient Medical Equipment (e.g., Oxygen Tank, IV Tubing)	✓			

ARRT. (2019). Primary Certification Didactic and Clinical Competency Requirements: Radiography. Retrieved from <https://www.arrt.org/pdfs/Disциплиnes/Competency-Requirements/RAD-Competency-Requirements.pdf>

Appendix U

Shawnee State University

Clinical Performance Evaluation- First Year (RDLT 1290 and 1390) Performed by: Clinical Instructor assigned at affiliate facility

The student is assessed in the following areas by the assigned Clinical Instructor from affiliated facility. Clinical Instructors evaluate students at midterm and at the end of the semester and should assess students based on the current experience level in the program. Clinical Instructors are expected to leave comments on student performance and students are expected to review evaluations after completion. The evaluations are a portion of the student clinical grade.

Grading key:

Unacceptable (0U)

Needs Major Improvement (0N)

Needs Minor Improvement (4)

Satisfactory (4.5)

Outstanding (5)

Statement:	Grading key:
1. Student arrives at clinical rotation ready to begin the day with cleaned and stocked examination rooms.	
2. Student is dressed appropriately. Appears neat, clean and professional.	
3. Student demonstrates knowledge of patient care and is able to apply skills in the clinical setting.	
4. Student demonstrates knowledge of proper positioning skills (repeat exams are kept to a minimum)	
5. Student provides adequate radiation protection practices to all patients.	
6. Student communicates effectively as a team member with staff and other health care personnel.	
7. Student communicates effectively with patients showing professionalism with maturity and empathy without judgment.	
8. Student demonstrates a positive attitude; accepts criticism and works to adjust accordingly.	
9. Student works efficiently and stays busy with relevant activities; demonstrates positive work initiative.	
10. Student performs examinations in a timely manner to provide a safe patient environment.	
11. Student displays effective skills to manipulate diagnostic techniques relevant to the procedure (select NA for fall semester.)	
12. Student demonstrates effective skills to manage a non-routine or trauma situation (select NA for fall semester.)	

Appendix V

Shawnee State University Clinical Performance Evaluation- Second Year Summer Semester (RDLT 2190) Performed by: Clinical Instructor assigned at affiliate facility

The student is assessed in the following areas by the assigned Clinical Instructor from affiliated facility. Clinical Instructors evaluate students at midterm and at the end of the semester and should assess students based on the current experience level in the program. Clinical Instructors are expected to leave comments on student performance and students are expected to review evaluations after completion. The evaluations are a portion of the student clinical grade.

Grading key:
Unacceptable (0U)
Needs Major Improvement (0N)
Needs Minor Improvement (4)
Satisfactory (4.5)
Outstanding (5)

Statement:	Grading key:
1. Student arrives at clinical rotation ready to begin the day with cleaned and stocked examination rooms.	
2. Student is dressed appropriately. Appears neat, clean and professional.	
3. Student demonstrates knowledge of patient care and is able to apply skills in the clinical setting.	
4. Student demonstrates knowledge of proper positioning skills (repeat exams are kept to a minimal)	
5. Student provides adequate radiation protection practices to all patients.	
6. Student communicates effectively as a team member with staff and other health care personnel.	
7. Student communicates effectively with patients showing professionalism with maturity and empathy without judgment.	
8. Student demonstrates a positive attitude; accepts criticism and works to adjust accordingly.	
9. Student works efficiently and stays busy with relevant activities; demonstrates positive work initiative.	
10. Student performs examinations in a timely manner to provide a safe patient environment.	
11. Student demonstrate skills to manipulate technical factors relevant to the procedure.	
12. Student demonstrates initiative to assist with fluoroscopy (if applicable), surgical examinations (if applicable) or portable exams.	
13. Student demonstrates effectively critical thinking in non-routine and trauma situations to provide quality diagnostic images.	
14. Student applies critical thinking skills to identify and seek solutions to adjust for repeat examinations.	

Appendix W

Shawnee State University Clinical Performance Evaluation- Second Year (RDLT 2290 & 2390) Performed by: Clinical Instructor assigned at affiliate facility

The student is assessed in the following areas by the assigned Clinical Instructor from affiliated facility. Clinical Instructors evaluate students at midterm and at the end of the semester and should assess students based on the current experience level in the program. Clinical Instructors are expected to leave comments on student performance and students are expected to review evaluations after completion. The evaluations are a portion of the student clinical grade.

Grading key:

Unacceptable (0U)
Needs Major Improvement (0N)
Needs Minor Improvement (4)
Satisfactory (4.5)
Outstanding (5)

Statement:	Grading key:
1. Student arrives at clinical rotation ready to begin the day with cleaned and stocked examination rooms.	
2. Student is dressed appropriately. Appears neat, clean and professional.	
3. Student demonstrates knowledge of patient care and is able to apply skills in the clinical setting.	
4. Student demonstrates knowledge of proper positioning skills (repeat exams are kept to a minimal)	
5. Student provides adequate radiation protection practices to all patients.	
6. Student communicates effectively as a team member with staff and other health care personnel.	
7. Student communicates effectively with patients showing professionalism with maturity and empathy without judgment.	
8. Student demonstrates a positive attitude; accepts criticism and works to adjust accordingly.	
9. Student works efficiently and stays busy with relevant activities; demonstrates positive work initiative.	
10. Student performs examinations in a timely manner to provide a safe patient environment.	
11. Student manipulates technical factors selections based on patient ability and pathology.	
12. Student is effectively performing fluoroscopy (if applicable), surgical examinations (if applicable) or portable exams.	
13. Student demonstrates effective critical thinking in non-routine and trauma situations to provide quality diagnostic images.	
14. Student applies critical thinking skills to identify, seek and adjust position or diagnostic technique to effectively adjust for repeat examinations.	

Appendix X

Shawnee State University Faculty Clinical Performance Evaluation Performed by: Shawnee State Radiologic Technology Faculty

The student is assessed in the following areas by faculty members after a clinical site visit(s). Faculty members are expected to leave comments on student performance and students are expected to review evaluations after completion. The evaluations are a portion of the student clinical grade.

Grading key:
Unacceptable (0U)
Needs Major Improvement (0N)
Needs Minor Improvement (4)
Satisfactory (4.5)
Outstanding (5)

Statement:	Grading key:
1. Student is dressed appropriately. Appears neat, clean and professional. Following all guidelines set by program handbook.	
2. Student demonstrates knowledge of patient care and is able to apply skills in the clinical setting.	
3. Student demonstrates knowledge of proper positioning skills.	
4. Student provides adequate radiation protection practices to all patients.	
5. Student communicates effectively as a team member with staff and other health care personnel.	
6. Student communicates effectively with patients showing professionalism with maturity and empathy without judgment.	
7. Student demonstrates a positive attitude; accepts criticism and works to adjust accordingly.	
8. Student works efficiently and stays busy with relevant activities; demonstrates positive work initiative.	
9. Student performs examinations in a timely manner to provide a safe patient environment.	
10. Student applies critical thinking skills to identify and seek solutions to adapt to individual patient situations with knowledge of procedures and patient care. Student adjust technical values accordingly (if applicable.)	

