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# Shawnee State

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U N I V E R S I T Y

## 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.

In this handbook the student will find the necessary requirements for the satisfactory completion of each academic semester.

The student is held responsible for familiarizing him/herself with the academic policies and procedures contained in this program handbook.

Specific questions regarding the clinical experience, the student should refer to the Clinical Handbook for the Radiologic Technology Program.

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RADIOLOGIC TECHNOLOGY PROGRAM  
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**SHAWNEE STATE UNIVERSITY  
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.

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.

## **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.

## ARRT CODE OF ETHICS

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

1. The radiologic technologist acts in a professional manner, responds to patient needs, and supports colleagues and associates in providing quality 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 sex, race, creed, religion, or socio-economic status.
4. The radiologic technologist practices technology founded upon theoretical knowledge and concepts, uses equipment and accessories consistent with the purposes for which they were designed, and employs procedures and techniques appropriately.
5. The radiologic technologist assesses situations; exercises care, discretion, and judgment; assumes responsibility for professional decisions; and acts in the best interest of the patient.
6. The radiologic technologist acts as an agent through observation and communication to obtain pertinent information for the physician to aid in the diagnosis and treatment of the patient and recognizes that interpretation and diagnosis are outside the scope of practice for the profession.
7. The radiologic technologist uses equipment and accessories, employs techniques and procedures, performs services in accordance with an accepted standard of practice, and demonstrates expertise in minimizing radiation exposure to the patient, self, and other members of the healthcare team.
8. The radiologic technologist practices ethical conduct appropriate to the profession and protects the patient's right to quality radiologic technology care.
9. The radiologic technologist respects confidences entrusted in the course of professional practice, respects the patient's right to privacy, and reveals confidential information only as required by law or to protect the welfare of the individual or the community.

## ARRT CODE OF ETHICS (Continued)

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.

Document available at:

<https://www.arrt.org/docs/default-source/Governing-Documents/arrt-standards-of-ethics.pdf?sfvrsn=10>

Last Revised: September 1, 2016 by ARRT  
Reviewed 05/2018



## JRCERT NON-COMPLIANCE PROCEDURE

The Joint Review Committee on Education in Radiologic Technology (JRCERT) accredits the Radiography Program at Shawnee State University. The JRCERT has adopted the **Standards for an Accredited Educational Program in Radiologic Sciences (STANDARDS)** that are directed at the assessment of the program and students' 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 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 or clinical instructor or 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.

## **RADIOLOGIC TECHNOLOGY 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.

### **Accreditation**

The Radiologic Technology program at Shawnee State University is fully accredited by the Joint Review Committee on Education in Radiologic Technology, 20 N. Wacker Drive, Suite 2850, Chicago, IL 60606-3182, telephone number: (312) 704-5300.  
mail@jrcert.org

## 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	3
	<b>**Second Semester – Fall</b>			
<b>UNIV 1100</b>	<b>First Year Experience</b>	<b>1</b>		<b>1</b>
RDLT 1221	Radiographic Procedures II	3	2	3
RDLT 1240	Imaging Science and Equipment	3		3
RDLT 1290	Clinical Experience 1		16	2
BIOL 1130	Principles of Anatomy and Physiology I	3		4
MATH 1200	College Algebra	3		3
	<b>Third Semester – Spring</b>			
RDLT 1322	Radiographic Procedures III	3	1	3
RDLT 1341	Image Production and Processing	3	1	4
RDLT 1390	Clinical Experience 2		16	2
BIOL 1131	Principles of Anatomy and Physiology II	3		4
ENGL 1101 or 1102	Discourse and Composition	3		3
	<b>Fourth Semester – Summer</b>			
RDLT 2190	Clinical Experience 3		32	3
RDLT 2142	Image Analysis	1		1
	<b>Fifth Semester – Fall</b>			
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
BUIS 1010	Computer Applications	3		3
	<b>Sixth Semester – Spring</b>			
RDLT 2361	Imaging Seminar	2		3
RDLT 2390	Clinical Experience 5		21	3
BIOL 3635	Sectional Anatomy	2		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 (3)**

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 (3)**

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, electrostatics, 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 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.*

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## 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 Spring 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 on the audit and each will initial it after the review.
  
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.

## **SHAWNEE STATE UNIVERSITY 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.

## 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 2.0 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.



## **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."

## 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.)



**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 208, 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:

Revised 5/2007  
Reviewed 5/2018

## 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. Film badges 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.)

## **STUDENT DRESS CODE FOR RADIOGRAPHIC LABS**

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. Facial hair must be kept clean and neatly trimmed.
4. Clothing worn to lab must be neat and clean. Females are urged not to wear dresses/skirts to lab.
5. Students shall adhere to proper grooming and hygiene.
6. Students are required to replace phantoms or other equipment, turn off the radiographic unit, test equipment, and leave the lab in good order.

Revised 10/1997  
Reviewed 5/2018

## 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.

## STATE LICENSURE

Ohio law requires all workers who perform diagnostic radiologic procedures to hold a license. During your second year in the program you will be eligible (but not required) to take the state examination to become a "general x-ray machine operator" (GXMO).

To get more information about the GXMO exam you can get a copy of the law and the application from the Ohio Department of Health, Radiologic Technology Section's web site at <https://www.odh.ohio.gov/en/odhprograms/rp/xray/lic/gxmorequirements>. If you need to call them their number is (614) 752-4319. You are **not** required to have this license to complete your clinical education requirements.

## 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 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 prove 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:
  - a. 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.

## **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 the Student Success Center, Massie Hall, (Ph) 351-3594, *PRIOR* to receiving services.

## 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. No student should be used for holding patients. 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. Always wear your radiation monitoring device in clinical or in the energized lab. 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 Mirion Dosimetry Services, 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.
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).

## Pregnant Radiologic Technology Students

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

1. Continuing in the program without declaring their pregnancy.
2. Declaring their pregnancy and following the guidelines listed below.
3. Withdrawing from the program and returning the following year (if space is available).
4. 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:

1. 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).

### **Pregnant Radiologic Technology Students (Continued)**

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.

## ***Radiologic Technology Program***

### **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 \_\_\_\_\_

Revised 6/2015  
Reviewed 5/2018

## 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 crib notes, "cheat sheets," or any other device, including electronic devices not permitted by the instructor, in aid of writing the exam;
5. Serving as, or enlisting the assistance of, a "ringer" or 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>*

Revised 5/2017  
Reviewed 5/2018



## 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)

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

\*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.

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).

## **Grievance or Complaint Procedure**

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 dean of the College of Professional Studies (or designee). The dean will have 5 days to notify you of the results.
5. 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 have 5 days to notify you of the results.

## **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. 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, p. 30.)

Use of cell phones or other electronic devices at the clinical sites is also prohibited. 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 and will warrant lowering of clinical grade and/or dismissal from program.

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.

**NOTE:** Cell phone use may be prohibited by many health care facilities as it may interfere with some patient monitoring equipment.

## 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.

## 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 (trajecsys.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

## **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.



Date: \_\_\_\_\_

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

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(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*