

2024-2026



RADIOLOGIC
TECHNOLOGY
PROGRAM HANDBOOK



Minnesota West Community & Technical College
Luverne Center
311 N Spring Street
Luverne, MN 56156
507-449-2775

Welcome!

We are happy to welcome to you the Minnesota West Community & Technical College Luverne Educational Center for Health Careers in Radiologic Technology Program. It is our most sincere desire that you will display your best efforts during your enrollment at the College.

This Radiologic Technology Program Handbook is compiled as a supplement to the [Student Information & Policies](#) section of the Minnesota West website. It will assist you with the many questions that arise each year relative to the policies of the Radiologic Technology Program and its clinical affiliations. You are expected to be cognizant of and adhere to these policies.

We wish you much success!

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I. PROGRAM OFFICIALS & FACULTY

**Minnesota West Community & Technical College
Luverne Center
Administrative Personnel**

Dr. Terry Gaalswyk President
Minnesota West Community & Technical College

Dr. Arthur Brown College Provost
Worthington Campus

Jackie Otkin Director of Allied Health
Pipestone Campus

Radiologic Technology Program Officials

Katherine Muller Program Director

Sally Sieve Clinical Coordinator

Clinical Affiliates

Avera Marshall Regional Medical Center/Clinic, Marshall, MN

Chippewa County Montevideo Hospital, Montevideo, MN

Granite Falls Municipal Hospital, Granite Falls, MN

Murray County Medical Center, Slayton, MN

Pipestone County Medical Center, Pipestone, MN

Redwood Area Hospital, Redwood Falls, MN

Sanford Hospital in Luverne, Luverne, MN

Sanford Worthington Hospital/Clinic, Worthington, MN

Windom Area Hospital, Windom, MN

Hendricks Community Hospital, Hendricks, MN

Avera Dell Rapids, Dell Rapids, SD
Hegg Memorial, Rock Valley, IA
Sanford Orthopedics and Sports Medicine, Sioux Falls, SD
Sanford Clinics Radiology, Sioux Falls, SD (multiple locations)
Sanford Canton-Inwood Hospital, Canton, SD
Brookings Heath System, Brookings, SD
Madison Community Hospital, Madison, SD
Sanford Medical Center-Jackson, Jackson, MN
Avera Flandreau Hospital, Flandreau, SD
Flandreau Santee Sioux Tribal Health Center, Flandreau, SD
Mayo Clinic Fairmont, Fairmont, MN
Sanford Rock Rapids, Rock Rapids, IA
Avera Worthington Clinic, Worthington, MN

Minnesota West Community & Technical College's Radiologic Technology Program

MISSION STATEMENT

The mission of the Minnesota West Community & Technical College's Radiologic Technology Program is to meet or exceed the JRCERT standards and prepare individuals with the necessary knowledge and skills required of an entry-level Radiologic Technologist. Through the process of continuous improvement, the program faculty and clinical affiliates will provide access to quality radiographic technologists.

The Radiologic Technology Program is designed to provide students with the knowledge and ability to:

The Minnesota West Community & Technical College Radiologic Technology program outcomes are designed to provide students who complete the program with the knowledge and ability to:

- Demonstrate use of verbal and written communications skills effectively in medical and professional relationships.
- Provide basic patient care and comfort measures while anticipating patient needs.
- Apply principles of body mechanics in patient transportation, transfer, and equipment operations.
- Exercise independent judgment and discretion in areas of exposure factor manipulations involving all technical and equipment functions for procedures routinely performed.
- Demonstrate competence in radiographic examinations as outlined by the American Registry of Radiologic Technologists (ARRT).
- Prepare students to sit for ARRT Registry Examination.
- Promote lifelong learning with continued education and affiliation with state and national radiologic technology societies.
- Demonstrate knowledge and skill in evaluating radiographs for anatomy, positioning, and image quality.
- Practice radiation protection for the patient, self, and others by applying the concept of ALARA (As Low As Reasonably Achievable).
- Students will observe a wide range of imaging modalities to broaden their experience within radiologic technology while exploring job opportunities and working conditions within the field.
- Conduct self in a professional manner as outlined by the American Society of Radiologic Technologists.

***MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE
RADIOLOGIC TECHNOLOGY PROGRAM GOALS***

Goal 1

The program will continuously evaluate program effectiveness.

- Students who enroll in the program will complete the program.
- Graduates will pass the ARRT radiography exam.
- Graduates will be satisfied with the program.
- Employers will be satisfied with graduate's performance.
- Graduates seeking employment will be employed.

Goal 2

The student will be clinically competent.

- The student will demonstrate radiation protection practices.
- The student will demonstrate positioning skills.
- The student will demonstrate ability to use radiographic equipment.

Goal 3

The student will use problem solving and critical thinking skills.

- The student will evaluate images effectively.
- The students will analyze laboratory experiments and applications.

Goal 4

The students will demonstrate professional and ethical behavior.

- The student will demonstrate basic patient care skills.
- The student will demonstrate age-appropriateness in regards to patient care.
- The student will demonstrate professionalism.

Goal 5

The students will effectively communicate.

- The student will communicate within the healthcare setting.
- The student will demonstrate communication skills.

AMERICAN REGISTRY OF RADIOLOGIC TECHNOLOGISTS

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 Registered Technologists 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 Registered Technologists 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 conducts herself or himself 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.
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.

PROGRAM OVERVIEW

The Radiologic Technology program is six semesters or twenty-four months in length. An Associate of Applied Science degree with a major in Radiologic Technology is awarded upon completion of the 84 semester credits required in the curriculum. With the completion of the program, students are eligible to sit the Registry Exam for Radiologic Technologists through application to the American Registry of Radiologic Technologists (ARRT). Only technologists who are currently registered – have renewed within the past year – may designate themselves as ARRT Registered Technologists and use the initials “R.T.” after their names.

Didactic classes and clinical instruction begin with the fall semester and are designed to be successive through the beginning to termination of the program. Students are given a didactic/clinical schedule at the beginning of each semester. Upon successful completion of the program requirements, the graduate will be awarded an Associate of Applied Science degree. The program requirements for graduation are as follows:

1. The student must achieve a grade of 2.0 or above in each course comprising the curriculum of the program.
2. The student must complete an average of 1,395 clinical hours. This is subject to change slightly.
3. The clinical performance objectives must be completed.
4. The clinical competencies set by the ARRT must be met with satisfactory rating.

The competencies required of each graduate of the Radiologic Technology Program are designed to comply with the Clinical Competency Requirements Adopted by the American Registry of Radiologic Technologists.

Radiologic Technology – AAS - 84

Minnesota West Community & Technical College
Luverne Educational Center for Health Careers

Note: Prerequisites do not have to be completed prior to applying for the program, however, they must be completed prior to starting the program.

Course #	Course Title	Credits	Lec/Lab/Ojt
Prerequisites			
BIOL2245	Medical Terminology	2	
BIOL2201	Anatomy	4	
RADT1105	Radiographic Basics	1	1/0/0
		Total 7 credits	
1st Fall Semester			
MATH1111	Algebra	3	
RADT1110	Radiological Procedures I	6	5/1/0
RADT1130	Radiological Exposures I	3	2/1/0
RADT1100	Intro to Radiography & Patient Care	4	3/1/0
		Total 16 credits	
1st Spring Semester			
RADT1150	Clinical Radiography I	12	0/0/12
BIOL2202	Physiology	4	
		Total 16 credits	
1st Summer Semester			
RADT1120	Radiological Procedures II	5	3/2/0
RADT2240	Principles of Radiobiology	3	2/1/0
RADT2230	Radiological Pathology	2	2/0/0
PSYC1150	Developmental Psychology	3	
		Total 13 credits	
2nd Fall Semester			
RADT1160	Clinical Radiography II	12	0/0/12
HC1290	Healthcare and Society	1	
		Total 13 credits	
2nd Spring Semester			
RADT2210	Radiological Procedures III	2	2/0/0
RADT2220	Radiological Equipment	4	3/1/0
RADT1140	Radiological Exposures II	4	3/1/0
ENGL1101	Composition	3	
		Total 13 credits	
2nd Summer Semester			
RADT2250	Clinical Radiography III	3	0/0/3
RADT2280	Board Review	3	2/0/0
		Total 6 credits	

Minnesota West Community & Technical College is an equal opportunity employer/educator. This document is accurate at time of publication. All revisions will take priority over the information given here.

The Minnesota West Community & Technical College radiologic technology program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT).

JRCERT
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Chicago, SD 60606-3182
312.704.5300
Email: mail@jrcert.org

CURRICULUM DESIGN

The Minnesota West Community & Technical College Radiologic Technology Program is accredited by the JRCERT and adheres to the standards set by them. The curriculum is guided by the ASRT which incorporates both program specific courses along with general education requirements. The radiographic technology program is instructed by classroom, laboratory and clinical components.

The classroom component of instruction is used to teach correct theories and formulas. This component is taught through lecture which reinforces the anatomy, physiology, disease mechanism, technique, and positioning involved with a particular exam and instructs the student in the proper methods of performing a particular exam.

The laboratory portion of instruction is used to demonstrate proper methods and positioning, allowing students to practice positioning through role-play, phantom imaging, and demonstration. Laboratory instruction is used to demonstrate these theories and formulas by demonstrating and practicing as they would apply to clinical situations.

In the clinical setting, students apply what they have learned with constant supervision by the technologists so that film critique and evaluation of the students' performance is continuous and noted. It is a requirement of the clinical affiliation sites that the technologists monitor the exam and review the images produced. Clinical affiliates will have an adequate number of radiographic rooms to ensure that the students can acquire expertise and proficiency in a wide variety of diagnostic radiographic procedures by applying classroom theory to the actual practice of technical skills on specified levels of competency while maintaining a one technologist to one student ratio.

For program effectiveness including, ARRT board pass rate, job placement, employer satisfaction and graduate satisfaction, see [www. JRCERT.org](http://www.JRCERT.org)

Competency development

Once a student has learned a theory in the classroom and has successfully tested over the material, they will then demonstrate the theory in the laboratory. Upon successful laboratory testing, the student will have to opportunity for testing within the clinical

setting called competency testing. This method of competency based education is based on cognitive, psychomotor and affective domain instruction. The following steps occur:

- Prior to completing any clinical category, the student must have successfully completed the anatomy and positioning laboratory and lecture classes associated with the particular category.
- Students are assigned clinical competency categories of radiographic exams, which are intended to be completed in a prescribed period of time. The clinical competency categories are those clinical competency requirements adopted by the ARRT.
- Competency achievement is noted when a student completes the exam under direct supervision and receives a satisfactory rating on the competency form.

Clinical affiliates are informed of each student's progression periodically. Students skilled in each task through didactic and performing at an acceptable level demonstrated in the lab setting will be allowed to perform the task under *direct supervision*. The registered technologist assigned as clinical instructor for the student monitors conduct and evaluates clinical competency. All exams require a competency evaluation before the student can perform those exams under *indirect supervision*. A list of exam categories and the date by which they must be successfully completed is provided in the Clinical Evaluation section of this handbook.

EVALUATION METHODS

Didactic (classroom & laboratory)

The student's progress in didactic instruction is evaluated with the use of Reading, Tests, Individual Projects, Oral Presentations, Worksheets, Collaborative Projects, Film Critique, Textbook Problems, Papers, Portfolios, Group Problems, Term Papers and Laboratory Demonstration. A minimum average course grade of a "C" (80%) is required to pass each course in order to continue in the program.

Clinical

There are core clinical competencies that all individuals must demonstrate to establish eligibility for ARRT certification. ARRT encourages individuals to obtain education and experience beyond these core requirements, which is also the intent of the program.

The students must demonstrate **competency in 37 mandatory** Radiological Procedures. Up to 2 of the 31 mandatory competencies may be simulated in the laboratory setting. The student must also demonstrate **competency in 15 of the 34 elective** radiologic procedures. At least two of those 15 electives must be from the skull/head list of radiological procedures. Also, at least one of the 15 electives must be from the fluoroscopy section. **Electives** may be demonstrated on patients or phantoms or as simulations. Students will be required to have a **total of 52 radiologic procedure competencies** to graduate and be eligible to sit for the ARRT exam.

Competency demonstration should incorporate patient-specific variations such as age, gender, and pathology. In addition to the Radiological Procedure competencies, there are 6 mandatory General Patient Care competencies. Some of these competencies will be performed on real patients but may be simulated if necessary. A list of these patient care competencies are included with the procedure competency requirements.

Clinical testing of previously learned procedures will be done in the form of announced and unannounced Clinical Performance Evaluations or "rechecks". The purpose of the Clinical Performance Evaluation is to assure that once competency is attained for a particular procedure, it is maintained throughout the educational process and into employment. Students may also be rechecked on exams they have not yet met competency on. This allows students to practice or review the procedure to better assure performance when completing the exam for competency in the clinical setting. Clinical Performance Evaluations will be done at least but not limited to two times per semester.

Students will be evaluated on radiographic and procedural competencies as well as Student Professional and Behavioral Evaluations. Students will be evaluated by clinical instructors at least but not limited to two times per semester.

Student Discipline/Termination Policy

The student disciplinary procedure will be initiated due to substandard, unethical or inappropriate conduct. The Minnesota West Radiologic Technology Program will follow the student code of conduct and the policies and procedures outlined on the webpage for student conduct (See Student Code of Conduct Section B). Specific guidelines not outlined in the college student code of conduct that are specific to the Minnesota West Radiologic Technology Program are outlined below.

Unsafe or intolerable behavior or acts are to be reported to the MnWest Program Director. A form will be filled out describing the behavior including the clinical/classroom staff and the student. A disciplinary action plan will then be filled out to document the necessary changes that will take place to correct the behavior. Once a student is placed on a disciplinary action plan with their first offense, they will remain on a plan until graduation from the program. When two behavior/acts are documented, panel proceedings, which are outlined in the [Student Code of Conduct Proceedings](#) found on the Minnesota West website, can be held. These proceedings will decide upon the fate of the student's ability to continue within the program.

In the event that the intolerable behavior warrants immediate action, the panel proceedings may take place with only one documented unsafe or intolerable behavior.

The following are considered intolerable or unsafe behaviors/acts by the Minnesota West Radiologic Technology Program and may be reported to program officials by any member of the

college community. Violation of any of the below Intolerable or Unsafe Behaviors from either the Academic or Clinical section can warrant student to be put on Student Disciplinary Plan by the MN West Program Director.

Immediate termination from the MN West Radiologic Technology Program will result for any of the following reasons:

- Not achieving a grade of 2.0 (C) or above in each course required in the program.
- Failure to comply with Student Disciplinary Action Plan.
- Tampering with radiation film badges of self or others.
- Violating HIPAA or patient confidentiality
- Any acts deemed unsafe by MN West Program officials.

Academic Intolerable or Unsafe Behaviors:

- Not completing assignments
- Repeat unexcused tardiness/absence from class
- Failure to follow posted laboratory rules

Clinical Intolerable or Unsafe Behaviors:

- Receiving below 80% rating on student Clinical Instructor Evaluations
- Repeat unexcused tardiness to Clinicals.
- Unexcused absenteeism from Clinicals (including failure to follow notification of absence procedure as outlined in the attendance policy and/or falsification of sick time).
- Failure to thrive in clinical and/or repeat complaints by clinical site staff of lack of progress and clinical competency
- Release of confidential information regarding patients and/or hospital or clinical personnel or activities
- Not performing or completing assignments
- Not obtaining supervision from staff as required
- Committing clinical errors such as but not limited to:
 - Misidentification of patient
 - Unnecessarily exposing patient to radiation
 - Deviation from established protocol
 - Gross carelessness in regard to safety of patients or colleagues
- Discourteous, unprofessional treatment of patients, public, staff or fellow students
- Failure to demonstrate professionalism such as but not limited to:
 - Lack of personal hygiene
 - Careless personal appearance/cleanliness
 - Use of foul language
 - Excessive cell phone usage

The Administration of the Minnesota West Community & Technical College and the Faculty of the Program of Radiologic Technology will enforce the above criteria. Students have the right to appeal decisions as outlined on [Student Information & Policies](#) section of the College website. The student may request re-entry into the program according to the readmission policy.

Re-admission Policy

Students dismissed from the program due to clinical unsafe/intolerable behavior, will not be permissible to be re-admitted into the program. Students that have been dismissed due to academic intolerable behavior or have left by personal choice, will follow the guidelines below for re-admission into the program.

All requests for re-entry must be submitted in writing to the program director. For re-entry into the program, letters must be submitted during the semester prior to the student's request for readmission. Requests will be accepted for only one year from the date of withdrawal from the program to allow ARRT competency requirements to be continued. Any re-admission requests after one year will require the student to start the program over from the beginning and will require the student to be accepted through the program admissions process.

All students requesting re-admission will be required to demonstrate continued understanding of previously learned coursework. This will be done using both cognitive and psychomotor demonstration. Students will be required to pass with an 80% or above each final comprehensive written exam for courses they had previously passed within the program. Students will also be required to demonstrate a sampling of routine radiographic exams by performing them in the lab. Students will be allowed 2 attempts at each exam. If the student is not successful on either attempt, the student will be required to take previously passed coursework in order to be considered for re-admission. All readmissions will be at the discretion of the Program Director in consultation with the Evaluation Committee and the Director of Allied Health and will only be considered if the JRCERT maximum program capacity has not been met and as clinical sites are available.

If 2 or more students are re-applying for one available position, the committee will accept according to the following criteria: overall college GPA and general education credits completed. If a tie results, the re-accepted candidate will be randomly drawn.

Student Pregnancy Policy

Due to the well-documented sensitivity of the fetus to radiation during the early stages of pregnancy, it is the policy of the Minnesota West Community & Technical College to give all incoming female students appropriate information concerning this subject area to make an informed decision should the need arise.

While the program encourages any female student who becomes pregnant during the course of the program to declare her pregnancy in writing to the program director according to the NRC guidelines, this is strictly at the discretion of the student to do so. Whether a student chooses to declare her pregnancy or not, the student will be treated equitably by the program in all cases. It should be remembered that a non-declared pregnant student is not considered pregnant and cannot ask for special considerations due to her health status unless pregnancy is actually declared.

If a student becomes pregnant, once the program director has been notified in writing the following will occur:

- Special radiation safety session
- Second radiation badge will be ordered and worn at waist level while at any clinical site for the duration of the pregnancy
- Dose limits to the embryo/fetus due to occupational exposure of a declared pregnant woman not to exceed a monthly equivalent dose limit of 10 mrem (0.1 mSv) once the pregnancy is known.

Once the female student declares her pregnancy to the program, it will be up to the student, in consultation with the program director to decide how she would like to proceed with the clinical portion of the program during the course of her pregnancy. Possible options that the student may choose to pursue include:

- Continuation in program with no special consideration
- Written withdrawal of pregnancy declaration
- Rescheduling of potential high exposure rotations during pregnancy
- Take a leave of absence from clinical portion of the program for any desired portion of the pregnancy due to radiation safety/health concerns while completing the program didactic courses with the class of entrance. Completion of the clinical phase of the program would be within at least one year of the termination of pregnancy. The program reserves the right to require the student to demonstrate additional clinical and/or didactic competency as the student's situation warrants. **See Leave of Absence Policy.**
- Other options or combinations of the above will be considered in consultation between the student and the program director on an individual case by case decision.

The program is committed to the equitable treatment of all students in the program. Students will be expected to complete all clinical and didactic requirements of the program to become eligible for graduation and registry exams. Program and clinical requirements cannot be skipped or shortened due to pregnancy status. The student will be required to make up all clinical time missed during maternity leave with the clinical coordinator.

Student Health Policy

In order to protect the health of the student as well as those that the student comes into contact with, the Program and the College requires that each student get a physical examination by a physician and provide required documentation on the form found on the college website. Students are required to provide proof of immunization to mumps, measles, rubella, diphtheria, tetanus, pertussis, varicella, and hepatitis B series. In addition, a Quanterferon TB test

is required annually. The Quanterferon TB test result is kept on file with the other health information. In the event of a positive result, documented follow-up by a physician must be provided by the student at the expense of the student. Students are required to provide documentation of annual influenza vaccinations.

Information concerning health services, health service fees, immunization requirements and physical examination is found the college website and is discussed in depth at the mandatory program orientation.

Bloodborne Pathogen Policy

Students in the radiologic technology field will be trained on bloodborne pathogen standards before participating in activities or exercises that have potential for risk of exposure to blood or body fluids.

The **initial** training will be provided during the first fall semester in the program, RADT1100 Introduction to Radiologic Technology and Patient Care. All students are required to complete the initial training.

Students may be participating in activities within program courses that have potential for exposure to infectious diseases including, but not limited to, Hepatitis B and HIV. All measures must be exercised to minimize risk. Students who fail to comply, jeopardizing the safety of others or themselves, may be asked to withdraw from the course. See Student Discipline Policy in the MNWest Radiologic Technology Handbook.

In the event of significant exposure; punctured by contaminated needles or instruments or exposed to blood or body fluids (e.g. an occupational incident involving eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with body or other potentially infectious material, including saliva).., the student must report the incident IMMEDIATELY to the instructor or clinical supervisor and file an incident report with the college. Follow-up evaluation will be required consistent with Federal regulations. This may involve treatment at an emergency department or a public health department for an evaluation.

In the event of a significant exposure or injury during clinical experience, the student must report the incident immediately to their clinical instructor. The student must file an incident report and insurance claim with the college. Students may be sent to an emergency room or public health department for an evaluation. If this occurs after hours, proceed with the following steps and contact the appropriate instructor as soon as possible.

Student must follow one of the following protocols depending on the clinical site:

1. if the hospital/institution has an established protocol, follow their protocol
2. if in a physician's or dentist's office, go to the nearest emergency department for evaluation.

The college incident report must be completed and submitted to clinical coordinator.

BLOOD BORNE PATHOGEN EXPOSURE RESPONSE:

Bloodborne pathogen exposure is defined as blood or body fluid contact with the eye, mouth, or other mucous membrane, non-intact skin or parenteral contact with blood or other potentially infectious material, including saliva for dental.

Students in the radiologic technology field will be trained on bloodborne pathogen standards before participating in activities or exercises that have potential for risk of exposure to blood or body fluids.

The **initial** training will be provided during the first fall semester in the program, RADT1100 Introduction to Radiologic Technology and Patient Care. All students are required to complete the initial training.

The student with the exposure should:

1. Wash the affected area immediately with soap and water. Water only for eyes. Cleanse site with iodine when possible.
2. Report the incident to your immediate supervisor such as clinical instructor or lab instructor after cleansing the area.
3. If the incident happened on campus at Minnesota West Community & Technical College, we highly recommend that you visit your physician or healthcare provider immediately. The student will be responsible for the cost incurred.
4. If the incident happened at the clinical site, follow the hospital/clinic's protocol which may include going to the emergency room. If the source person is known to be HIV positive or very high risk individual, it is extremely important that the exposed person get to the Emergency Room within 1 hour to start prophylactic drug therapy. If there is not an Emergency Room at your clinical site, go to the nearest Emergency Room. The student will be responsible for the cost incurred at the visit.
5. Any bills or statements you receive as a result of this exposure are your responsibility, not the responsibility of Minnesota West Community & Technical College.

The Minnesota West Instructor should:

1. Have the student write an incident report making sure it is a detailed report. Give the report to the Administrative Secretary on your campus.
2. Inform the student the importance of receiving medical care.
3. Inform the student that they will bear the cost incurred.
4. Follow-up on the student in at least one week.

Student Accident and Health Plan

Please be aware and understand that Minnesota West Community and Technical College does not carry accident and health insurance for students enrolled. If the student does not have personal coverage through some insurance plan/carrier, he/she will not be covered by a policy for health or accident during attendance at Minnesota West Community and Technical College. Questions and further information regarding student accident and health coverage may be directed to the Student Development Coordinator. Health Division students are covered by liability insurance when serving clinical portions of required classes.

Attendance policy

Students are expected to be present and punctual every scheduled day of the program.

Class and clinical begins promptly at the time scheduled. Students are expected to arrive at least 5 minutes early and assume their class or clinical responsibilities on time. Students arriving after scheduled times will be marked tardy for official records.

When illness or emergency dictates a student's absence, he/she will:

1. Contact the appropriate program official (course instructor for class time or clinical coordinator for clinical time) by email if they are not immediately available.
2. Call the clinical instructor or supervisor at his/her assigned clinical site before the start of his/her shift to report absence from clinical. This will be documented at the clinical site.

Absence Policy

Students will be allowed 40 hours per academic year (August-August) as time off. Students are allowed to use this time for sick days, personal leave, bereavement leave, weather related time off, etc. **Time must be taken in increments of one hour.**

Clinical time missed will come out of this bank of time. Clinical time missed may be made up with the prior approval of Clinical Coordinator and clinical site. Reasons time can be made up are due to documented medical leave and bereavement. It is the student's responsibility to schedule the makeup clinical time. Clinical time will be awarded back in equal ratio of time missed in one hour increments.

Class time missed **cannot be made up**. The student is responsible for the material and required to make up any tests, quizzes, or other work at the class period following the absence or at a time designated by the course instructor. Failure to comply will result in zeros for the material missed. Students will be docked 10 points for any made up test (per course syllabus).

In the event that the student fails to make up clinical hours missed, the student clinical grade will drop one letter grade for every 8 hours missed above the 40 hours (i.e. student has a final letter grade of an “A” in Clinical II but missed 16 hours beyond their allotted 40 hours and failed to make up the time, their final grade would be a “C”)

Banking of hours for personal use is prohibited. The only time hours may be banked are for extenuating circumstances and must be approved prior to the absence by the Program Director. See Student Leave Policy.

Communication

Weather and other emergency alerts are sent through the StarAlert system. To opt in to receive alerts, visit: <https://www.mnwest.edu/index.php/cancellations>. It is expected that all students opt-in to receive these alerts. Class delays and cancellations will also be posted on the website at <https://www.mnwest.edu/index.php/cancellations>.

In the event that ANY MnWest location calls a late start, early dismissal, or cancels classes, clinical assignments will be adjusted to match that alert regardless of location. Minnesota West Radiologic Technology Program advises students not to travel to their clinical assignments if they do not feel safe on the road. If the student chooses not to go to a clinical assignment, make up time will be arranged with the program faculty to ensure that the course outcomes are met.

See Absence Policy.

Since all didactic instruction is held at Minnesota West Luverne, weather related delays/cancellations will be followed specific to Luverne location only.

All other communication program-related will be through Minnesota West email.

Student Leave Policy

A student may request a leave of absence at any time during the program due to medical illness, pregnancy, or other extenuating circumstances. Each case will be reviewed individually taking into account the impact of lost clinical and/or class time as well as the length of time requested. In the event that such extenuating circumstances are planned, clinical time may be banked. Ultimately, the Program Director will make decisions regarding any leave of absence longer than the 40 hours allotted per year.

Student Employment Policy

It is the policy of the Minnesota West Community & Technical College that students enrolled in the Radiologic Technology Program do not accept or engage in paid employment as a Radiologic Technologist.

Should a student choose not to comply with this policy, the Minnesota West Community & Technical College, the Radiologic Technology Program, the clinical affiliates of the program, all of the respective administrative personnel, and program officials, will not accept any legal obligation for any liability arising out of the actions of said student(s).

One must also realize that a student who engages in employment as a Radiologic Technologist is presenting him/her self to patients and to co-workers as a fully qualified Radiologic Technologist. Since such a student may not be able to perform up to the accepted “standards of practice”, the student would be demonstrating a lack of concern for the patient, co-workers, employing agency, ect. by being unable to provide competent radiological services.

Subsequently, the individual student’s ethical standards would be viewed as questionable.

If a student chooses to be employed by a clinical affiliated site, this employment is outside of all program didactic and clinical education time. **At no time will a student be “staffed” during their clinical hours. Students are not allowed to be paid for clinical time nor are they allowed to complete any competency exams during paid time.** Students will not be allowed to document exams in their clinical log book while they are employed as a student radiologic technologist. If this is observed, students face the possibility of probation or possible termination from the program.

Appeals and Grievance Policy

A student who feels that their right to an education is being affected unfairly due to the presence of a technical college academic or non-academic policy has the right to seek remedy. A student may complain concerning any college issue, and discuss it with the appropriate employee, and /or administrator as established by college procedure. A student has the right to seek remedy through the College’s designated complaint, appeal, or grievance procedures. Students should use available informal means (direct conversation) to have disputes resolved before making a complaint or filing an appeal or grievance. No retaliation of any kind against students, faculty/staff shall be taken for participation in a complaint, appeal, or grievance.

Minnesota West Community & Technical College informs students of the established complaints, appeals, or grievance procedures available in the [Student Information & Policies](#) section of the Minnesota West website. The College has an established time frame for each step of a procedure. These procedures shall not substitute for other procedures specified in MnSCU procedures or negotiated agreements. These procedures shall also protect data privacy rights.

All appeals and grievances must be submitted in writing on the *Appeals and Grievance Form* which states appeals and grievance procedures and timelines. Appeals and grievances are

reviewed by standing campus committees, which report their findings directly to students. Appeals and grievances unresolved at the committee level may be submitted to the Senior Vice President or their designee for review. The decision of the Senior Vice President is final and binding.

If the appeal or grievance involves a MnSCU policy or the actions of MSCTC's President or Senior Vice President, a student may further appeal the decision through the MnSCU Chancellor to the MnSCU Board of Trustees. The decision of the MnSCU Board is final and binding. Due Process procedures are outlined in the [Student Information & Policies](#) section of the College website.

If the student feels that Minnesota West Radiologic Technology Program is not upholding the JRCERT Standards, a grievance may be filed directly with the JRCERT by contacting them at the following address.

JRCERT
20 N. Wacker Drive Suite 2850
Chicago, IL 60606-3182

Academic Guidance and Student Counseling.

Advising services are available to each student prior to, during and following enrollment. The Program Director and Clinical Coordinator serve as academic advisor, who are available for counseling, either by appointment or as time permits during the school year. Formative and summative advising is scheduled by the advisors on a mid-term and end-of-semester basis.

Admission Policy

Admission to the program requires that a completed Minnesota West Community & Technical College application be submitted prior to the January deadline. A completed application consists of completing the Minnesota West College application and indicating Radiologic Technology as intended major, sending in the application fee, sending official high school and college transcripts. In addition, students MUST fill out specific Radiologic Technology application located on program website. Applicants will then be ranked by number. Each applicant will be given a point for each pre-requisite and general education course completed and will also be granted points for their respective GPA. Students who have previously applied to the program or have submitted ACT scores will also be granted points. Students with the highest number of points will be accepted into the program. The number of students accepted each year is based upon the total program capacity that is set by the JRCERT. **See Admission Assessment Form.** Written notification will be sent in February. The accepted students will be required to attend a mandatory orientation in the spring semester to maintain their position in the program.

Applications submitted after the January deadline, which includes incomplete applications will be considered for the following year's program.

Pandemic Policy

The radiologic technology program will follow the Minnesota West Policy in the event of a pandemic. Due to the uniqueness of our program some adjustments may have to be made including but not limited to the following:

- Clinical location assignments
- Clinical hours
- Clinical days of attendance

Decisions will be made based on a case by case basis with the advisement of the clinical instructor, the program director, the clinical coordinator and the student. The program will assure equitable treatment to students and will assure that students will be allowed to complete their clinical rotation.

In the event that classes are shut down on campus due to a pandemic, clinicals will continue if possible. Course work will be made available via e-mail. Student class schedule may be altered by the program director when the pandemic subsides.

Radiation Protection Policies and Guidelines

Basic radiation protection measures are taught early in the program as part of *Introduction to Radiologic Technology and Patient Care and Radiographic Procedures I*. This is designed to give the students an adequate understanding of the principles for protecting the patient, him/herself, other staff, and the public in the clinical setting. A class devoted to radiation biology and protection is included in the curriculum, *Principles of Radiobiology*.

All radiologic technology students will be issued one radiation dosimeter which will be worn on the collar or near the neck on the outside of the lead apron. This dosimeter will be changed on a quarterly basis. The Program Director or Clinical Coordinator will exchange and collect these dosimeters, which will be sent to the dosimetry service provider for an occupational radiation exposure reading and report.

Students are required to wear their radiation dosimeter at all times during clinical hours and laboratory. Without a radiation dosimeter, the student is prohibited from completing clinical hours or laboratory. The student must make up all hours and laboratory missed. The guidelines for making up missed time due to lack of dosimeter will be determined by the course instructor.

The students are required to return all radiation dosimeters to the program officials. Failure to do so will result in an incomplete final grade for the semester until the badge is turned in.

Dosimeter reports will be kept at the school for a period of 30 years post-graduation. Students will be issued an “end dosimeter report” upon their exiting the program. The student’s radiation dose is kept in the program director’s office for the student to review when available and is also addressed with the student during the advising sessions held variously throughout the year.

The National Council on Radiation Protection and Measurements issues radiation dose limits for occupationally exposed adults. These limits apply to the sum of the dose received from external exposure and the dose from internally deposited radioactive material. The annual occupational limits for adults are 5 rem (0.05 Sv) total effective dose equivalent total organ dose equivalent to any single organ or tissue. Under normal conditions each student's exposure will be well below this amount. As a program training professionals within the radiologic technology field, all students who are over 18 years will be limited to the above exposure.

According to NCRP Report #116, the educational and training exposure for individuals who are under the age of 18 is 0.1 rem (100 mrem) per year. It is the Minnesota West Radiologic Technology Program's goal to ensure that all students, both over and under 18, receive less than 200 mrem whole body dose while in the program. This goal demonstrates an extreme limit to the students' overall occupational exposure to ionizing radiation.

If a student receives more than 50 mrem during any reporting period, a conference will be held with the RSO and the student to discuss the increased radiation dose and will be advised by program officials to determine the cause of the increased exposure and will develop a plan to limit radiation exposure for the remainder of the clinical semesters. This practice will ensure that the ALARA principle is being upheld at all times and ensures that the student will not meet or exceed the annual total radiation exposure amount.

All students are required to wear a lead apron at all times when working in a radiation exposure area such as fluoroscopy, surgery and portable work. Students must not hold image receptors, patients or any other objects during any radiographic procedure.

The Minnesota West Community & Technology College radiologic technology program is dedicated to providing radiation safety to all who are in contact with the energized lab including students, faculty and general public. Because of this commitment, students have restricted access to the energized lab. Restricted access requires that a qualified radiographer be available for supervision for all radiographic exposures done within the Radiologic Technology Laboratory. The exposure switch will be locked preventing the possibility of taking exposures when a qualified radiographer is not available.

Radiologic Technology Laboratory Rules posted with the radiologic technology energized lab at Minnesota West Community and technical college.

- Under no circumstances shall any person be outside control booth during any exposure.
- Under no circumstances shall any x-ray be performed on any individual.
- All exposures will be taken of inanimate objects (i.e. Phantoms, tools)
- The door shall be closed during all exposure.
- Students will have limited access to the energized lab. The energized lab will be open only when qualified radiographers are providing direct supervision for radiographic

exposures. The lab will also be open for students to practice when qualified personnel are providing indirect supervision or when the exposure switch is locked.

Basic MRI protection measures are taught early in the program as part of RADT1100 Introduction to Radiologic Technology. This is designed to give the students an adequate understanding of principles for protecting the patient, him/herself, other staff, and the public in the clinical setting. Each student is required to complete a basic MRI safety video. Following all education and video, a quiz is completed by students to assess for understanding. Each student is also required to fill out a screening form asking about anything that might create a health risk.

Program Grading Scale

The following scale will be used in all radiologic technology program courses to determine that student's final grades. Students must maintain an 80% average in all program courses to continue to the next semester of the program.

A	=	94-100%
B	=	86-93.9%
C	=	80-85.9%
D	=	70-79.9%
F	=	0-69.9%

CLINICAL EDUCATION

The clinical phase of the program is developed to apply classroom learning to the clinical environment. Application of classroom lectures is transferred and applied through clinical education assignments at area hospitals, clinics or other healthcare facilities. Students progress in their clinical skills and perform competency tests until all competencies are met to gain eligibility for ARRT Registry Exam.

Clinical Objectives

During and upon successful completion of all clinical courses the student should be able to:

- transfer didactic knowledge in the application of clinical skills through rotation at various clinical sites
- develop effective communication and psychomotor skills when providing patient care and working with medical staff
- become proficient in the operation and manipulation of radiographic equipment through classroom instruction, laboratory instruction, and clinical use. Within a department, each student will be expected to learn new equipment at each new rotation
- utilize radiation protection methods at all times for the protection of patient, self, and other individuals
- critique radiographs to determine diagnostic quality as it relates to technical factors and vary technical factors to obtain optimal radiograph, positioning, and visibility of the structures of interest through daily use
- determine the proper exposure factors necessary to obtain diagnostic radiographs through classroom instruction, laboratory instruction and clinical experience

- adjust positioning techniques, exposure factors, and communication skills according to patient conditions and situations by observing and participating in classroom instruction, laboratory instruction and clinical experience
- effectively apply learned principles of body mechanics to avoid injury to self, patient, or others during clinical rotations
- respond effectively during emergency situations by applying proper First Aid and/or CPR or by successfully completing an annual First Aid/CPR course
- safely operate pieces of radiographic equipment and understand their function to prevent possible hazards to self and patient by successfully completing various courses in the curriculum
- understand the anatomical structure and function of the human body and its importance in producing diagnostic radiographs by successfully completing various courses in the curriculum
- utilize critical thinking skills in evaluating situations, problems, and challenges that students may encounter in the Radiology Profession.

Rotations

Clinical rotations begin in the spring semester of the first year. Students will be introduced to patient care, radiation safety, and radiographic positioning prior to their first clinical experience.

Students are rotated through as many as 5 clinical education settings to ensure that each student receives a diverse experience. All clinical sites are categorized into groups according to the modalities offered and frequency of exams. Every student will be rotated through categories A,B, and D at least once as discussed in the categorized clinical list throughout their clinical education to ensure equitable opportunity for all students. The Clinical Coordinator and Program Director schedule clinical site rotations. Student preference will be considered, however will not be determining factor in clinical location assignment. GPA may also be utilized in determining placement of students if two students request the same location. Ultimately, the goal of the program when scheduling clinical assignments is ensuring that all students experience all types of radiography departments with equitable opportunity, regardless of geography of the clinical site. Students are provided with a schedule of clinical site rotations prior to each semester of the program. Upon the completion of the clinical phase of the program, the student will have received exposure to all facets of the field of radiology.

Students are responsible for all expenses incurred during clinical rotations including transportation and lodging if necessary. Students may be required to travel up to 120 miles to a clinical location.

Each clinical education setting has a designated clinical instructor who is qualified radiologic technologist recognized by the accrediting body (JRCERT). The clinical instructor is responsible for ensuring that the clinical objectives for the Minnesota West Community and Technical College Radiologic Technology Program are met. Activities at the clinical setting are coordinated by the clinical instructor with the aid of the clinical coordinator. Students may participate in exams with a variety of registered radiologic technologists, not just the clinical instructors.

Hours/Shifts

Students are assigned primarily to day shifts that vary between the hours of 7:00 am to 6:00 pm, with the exception of optional evening rotation. Shifts are set by the clinical instructor and clinical coordinator based on the greatest hours of experience for the student. The scheduled shifts are not negotiable.

Summary of Clinical Grade Components

- **Clinical Assessment by evaluations**
Evaluations will be completed periodically by any registered radiologic technologist who has observed the skills of the student through Trajecsys. We stress the importance of an honest and complete evaluation of the student during clinical rotations. Clinical instructors should not hesitate to add comments on the evaluation forms as needed. Also, the student will be given the opportunity to make comments as well to facilitate feedback in regards to the students' progression and skills. All evaluations are available for the students to view at any time after completion.
- **Competency Requirements**
All points from all competencies completed within the semester will be averaged and will apply toward the clinical grade. If the number of clinical competencies specified in the syllabus for that course is not met, the final clinical grade will be dropped by one letter grade for each competency that is missing.
- **Clinical Coordinator Evaluation**
Clinical testing of previously learned procedures will be done in the form of unannounced performance evaluations by the clinical coordinator that will include "spot checks" of radiologic procedures and anatomy. The purpose of the clinical coordinator evaluation is to assure that once competency is attained for a particular procedure it is maintained throughout the educational process and into employment. Students may be spot-checked on exams they have learned, but not yet met competency on to allow students to practice or review the procedure to better assure performance when performing the exam with patients.
- **Clinical Assignments as per Clinical Coordinator**

(More regarding specific clinical grading details are available in course syllabus.)

Student Supervision Policy

Until the student achieves the program's required competency in a given procedure (as evidenced by a completed final evaluation of such procedure), all clinical exams shall be carried out under the **direct supervision** of a registered radiologic technologist. Following are the parameters of direct supervision:

- The registered radiologic technologist reviews the request for examination in relation to the student's achievement.
- The registered radiologic technologist evaluates the condition of the patient in relation to the student's achievement.
- The registered radiologic technologist is present to assist the student as necessary.
- The registered radiologic technologist reviews and approves the radiographs.

The term **direct supervision** shall be interpreted to mean that a registered radiologic technologist is present in the exam room to supervise student activities.

Once the student achieves the program's required level of competency in a given procedure by successfully completing a competency, the student may perform such exam with **indirect supervision**. The term **indirect supervision** shall be interpreted to mean that a registered radiologic technologist is within vocal range of the student so that if the student encounters problems he/she can call for and receive help from the technologist.

This policy shall further be interpreted to mean that even after the student has proven competency, they cannot go to the hospital floors to do portable or surgical exams alone. When a student performs these exams, a technologist must accompany them to the floor. The technologist does not need to be present within the exam room, but must be within vocal range.

Students must be **directly supervised for all repeat radiographs** even if the student has proven competency on that particular exam.

This policy shall be interpreted to mean that any student (first or second year) requires direct supervision for any exam that the student has not proven competency. **This policy must be followed at all times.**

Background Study Requirements for Students in Clinical Programs

In 1995, amendments were added to the Vulnerable Adults Act which affects students in clinical placements at facilities licensed by the Minnesota Department of Health. The amendments require that individuals who provide direct contact services to patients, residents or client in licensed facilities must undergo a background study. Direct contact is defined as providing face to face care, training, supervision, counseling, consultation, or medication assistance to people receiving services from the agency or facility.

Facilities affected by this law are as follows:

- Boarding Care Homes
- Outpatient Surgical Centers
- Nursing Homes
- Home Care Agencies
- Residential Care Homes

- Board and lodging establishments providing supportive or health services
- Licensed Child Care Facilities
- Hospitals

The 1996 legislature made changes to the provisions governing background studies. The 1996 changes became effective on April 4, 1996

Contents of the New Law

- The Commissioner of Human Services is authorized to conduct studies initiated by educational programs that train persons providing direct contact services in licensed facilities.
- Annual background studies of students in clinical placements are required.
- Background study results may be transferred from one licensed facility to another.

Students must be informed of the following:

State law requires that any person who provides services that involve direct contact with patients and residents at a health care facility have a background study conducted by the State. An individual who is disqualified from having direct contact as a result of the background study, and whose disqualification is not set aside by the Commissioner of Health, will not be permitted to participate in a clinical placement in a health care facility. Failure to participate in a clinical placement required by the academic program would result in ineligibility to qualify for a degree in this program.

<https://www.revisor.mn.gov/statutes/?id=245C.15>

Background studies are submitted on all enrolled student during the fall of first and second year of the program prior to all clinical rotation assignments.

ARRT Background Study:

Upon completion of the Minnesota West Radiologic Technology Program, graduates will take a board exam by the ARRT. When determining eligibility for examination, the ARRT requires that the applicant be of good moral character. Conviction of a crime, including a felony, a gross misdemeanor with the sole exception of speeding and parking violations is considered to be a violation of the Standards of Ethics. Such violations must be cleared by the ARRT before the applicant can be assigned to an examination. The ARRT Ethics Pre-Application Review is reserved for those who:

- are not enrolled in an ARRT-recognized education program, or
- are more than six months until graduating from an ARRT-recognized education program.

<https://www.arrt.org/>

Dress Policy

A professional image must be portrayed while in the clinical setting. Personal hygiene is of the utmost importance. Students will have neatly trimmed fingernails. They will be permitted to wear a limited number of rings; generally an engagement ring or wedding band. Shoes must be clean, leather, and predominately white, black, or gray.

Visible body piercings are permitted, but the smallest size possible should be utilized. This does not include pierced ears although it is recommended to keep earrings to a limited number of one per earlobe. Facial piercings will be allowed at the discretion of Program Director/Clinical Coordinator.

Students are required to wear the program designated color scrub uniform (black). Students may wear a white solid top under the black scrub top or lab coat. Most importantly, the chosen attire must be clean and neat in appearance. Students are not allowed to wear clothing with advertisement or descriptive pictures. If students are not dressed appropriately, they will be sent home and this would result in a loss of clinical time.

Students are expected to uphold the following grooming guidelines:

- Hair should be clean with no scarves, ribbons, or decorative barrettes. Hair should be worn away from the face. Males should have a conservative haircut with mustaches, beards or other facial hair clean and neatly trimmed.
- Skin should be clean and odor-free. Strong perfumes or aftershave lotions should be avoided. Makeup should be used in moderation. All visible tattoos must be covered.
- Breath should be inoffensive. Regular oral hygiene is a must.

Radiation monitoring badge(s) **must** be worn whenever the student is “on duty” and **not** worn any other time. Appropriate identification nametags must be worn at all times in the clinical setting.

Injuries

Students who sustain any injuries during the clinical assignment will be required to complete incident forms provided by the hospital or clinic. If the injury involves treatment, the student has the option to deny treatment. If the student refuses treatment, they must fill out a treatment waiver form.

If the clinical instructor feels that the student cannot perform efficiently or effectively due to the injury, the clinical instructor should send the student home.

All injuries sustained in the clinical site should be communicated to the appropriate Minnesota West Community & Technical College program director immediately.

Substance Abuse Policy

Minnesota West Community & Technical College prohibits unlawful use, possession, production, manufacture, and distribution of alcohol and other drugs and controlled substances. The Minnesota West Radiologic Technology Program will follow the student code of conduct and the policies and procedures outlined on the webpage for student conduct (See Student Code of Conduct Section B).

In the event that a student is suspected of unlawful use, possession, production, manufacture, and/or distribution of alcohol and other drugs and controlled substances at the clinical site, the student must follow the hospital/clinic's protocol.