



# **Student Handbook 2009-2010**

Revised 8/05/09

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# ***PROGRAM INTRODUCTIONS***

# Welcome to the MTI Department of Radiologic Sciences

Welcome to the MTI Department of Radiologic Sciences. The programs within the department are joint financial efforts between Mitchell Technical Institute (MTI), Avera Queen of Peace Hospital and Cancer Center, Prairie Lakes Health System and Cancer Center, and various other clinical supporters. Mitchell Technical Institute is accredited by the NCA (North Central Association of Colleges and Schools). The Radiologic Technology and Radiation Therapy (Pending) programs are accredited by the JRCERT (Joint Review Committee on Education in Radiologic Technology).

These programs present a unique clinical and didactic challenge to students. This includes a combination of classroom study and clinical rotation for practical application. Classroom study will occur on the MTI. Clinical application will occur at a variety of area clinical sites.

Students graduating from either program will be eligible to sit for their respective national registry exam and earn the right to call themselves professionals in the field.

For more specific information, refer to the Program Description in the "Curriculum" portion of the handbook.

## Student Agreement

I have read the policies of the MTI Department of Radiologic Sciences and I agree to adhere to program policies described within.

Program faculty has my permission to email my grades when I request them

- YES**       **NO**

Program faculty has my permission to speak openly with prospective employers about my work habits when I list them as references.

- YES**       **NO**

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\* **This form is to be placed in the student's file.**

## **MTI VISION STATEMENT**

At Mitchell Technical Institute our vision is to be a leader in learning and a valued partner in transforming the lives and communities of South Dakota.

## **MTI MISSION STATEMENT**

***It is the mission of Mitchell Technical Institute to provide skills for success in technical careers***

To achieve this mission, Mitchell Technical Institute strives to:

- Provide high-quality Associate of Applied Science Degree, Diploma, and Certificate programs which prepare students for occupational success.
- Provide general education coursework which supports technical education and provide each student with the skills to communicate through speech and writing, use computers to process information, solve problems using basic computation, understand their role as individuals in society, and be flexible, adaptable lifelong learners.
- Provide customized training, seminars, conferences, workshops, courses, and consulting services to business, industry, and the community.
- Promote awareness of the institute through broad-based marketing and public relations activities.
- Promote diversity of the student population and respond to the needs of special students: i.e., those disadvantaged educationally, economically, and culturally; nontraditional learners; single parents; displaced workers and homemakers; and non-English speakers.
- Provide social and recreational activities, counseling support and a student government structure through an organized student services office.
- Continue to recruit and develop faculty and staff from backgrounds best suited to the overall development of the Institute.
- Foster growth and learning through a conducive educational environment.
- Commit itself to ongoing institutional improvement through a system of Self-study and assessment.

# ACCREDITATION

- Mitchell Technical Institute is accredited by:
  - The Commission on Institutions of Higher Education of the North Central Association of Colleges and Schools
  - The National Accrediting Agency for Clinical Laboratory Sciences
  - The American Association of Medical Assistants
- The Mitchell Technical Institute School of Radiologic Technology is accredited by:
  - The Joint Review Committee on Education in Radiologic Technology

## **MTI DEPARTMENT OF RADIOLOGIC SCIENCES MISSION STATEMENT AND GOALS**

It is the mission of the MTI Department of Radiologic Sciences to provide skills necessary for success in the field of radiologic technology and radiation therapy.

The goals of this program include the following:

1. To meet the needs of the students through providing relevant curriculum combining practical education and clinical experience with related theory.
2. To meet the needs of the regional medical community through preparing individuals for entry level employment in radiologic technology and radiation therapy.
3. To assist students in their career development and vocational exploration.

Revised 06/2006

# Student Radiologic Technologist Job Description

## 1. Position: Student Radiologic Technologist

Responsible to: Program Director  
Clinical Coordinator  
Clinical Instructor  
Department Directors  
Staff

## 2. Job Responsibilities (supervised by staff technologist):

- Responsible to operate radiologic equipment for the purpose of producing diagnostic x-ray films
- Establishes and maintains positive interpersonal relationships
- Utilizes time in an efficient manner
- Demonstrates reliability and punctuality
- Adheres to policies of MTI and the program, as well as those of any clinical site
- Demonstrates appropriate judgement and decision-making
- Perform other duties as assigned

## 3. Physical Demands and Working Conditions:

Heavy work requiring pushing, pulling, carrying, holding, lifting, and exerting up to 100 lbs. of force occasionally and/or up to 50 lbs. of force frequently and/or up to 20 lbs. of force constantly in order to move objects like the human body and portable equipment. Good manual dexterity is necessary for dialing, filing, grasping, holding, stapling, turning, typing, opening, reaching, removing, sorting, and writing. Up to 80% of the schedule involves standing or walking. Good hearing and communication skills are necessary for dealing with technologists, patients, visitors, nurses, physicians, and other staff. Because of the hazard of ionizing radiation exposure in x-ray, particular standards and procedures must be followed.

## 4. Professional Affiliations:

ARRT

ASRT

SDSRT (Student Radiologic Technologists will be required to attend the annual meeting during their second year of training)



**5. Essential Job Functions and Responsibilities (The Student Radiologic Technologist will perform all of the following under the supervision of a qualified Radiologic Technologist.)**

- a. Prepare patient and adjust equipment for taking radiographs. Position and instruct the patient regarding procedures. Administer contrast media as ordered.
  - Determine proper voltage / mAS for optimum radiographic quality.
  - Arrange, attach or adjust immobilization devices as necessary.
  - Adjust collimation and lead shielding to protect unnecessary exposure to ionizing radiation.
- b. Conduct exams in other areas of the hospital with portable equipment
  - Transport equipment to such area as OR, ER, and patient rooms.
  - Observe sterile techniques and complete exam promptly.
- c. Process films and prepare them for reading by the radiologist if necessary.
- d. Assist with staff/student on the job training and orientation.
- e. Assist with the collection and maintenance of records as required by JCAHO accreditation standards, OSHA, Quality assurance, and the law.
  - Assist the program director by copying films for teaching purposes.

**6. Co-Worker / Patient Relations**

- a. Student will constantly strive for a professional relationship with MTI, clinical sites, and especially patients.
  - Establishes a rapport with co-workers, faculty, physicians, and/or other students and is generally a “team” player.
  - Gives credit to fellow students or coworkers for their efforts and contributions.
  - Refrains from malicious gossip.**
  - Is receptive to constructive suggestions offered by others.
  - Shares responsibility, offers assistance to co-workers and patients by promptly responding to requests and needs.
  - Conveys enthusiasm and sincerity. Projects an image of professionalism through appropriate attire and mannerisms.
  - Wears proper identification.
  - Addresses and acknowledges faculty, staff, physicians, and patients as appropriate.

## **7. Continuing Education and Professional Development**

- a. Students shall make every attempt to better themselves professionally.
  - Consistently and regularly attends scheduled class and radiology departmental staff meetings.
  - Attends mandatory inservice sessions.
  - Conforms to program policies regarding presentation of written report for attendance of conventions.
  - Willingly completes special assignments in a quality fashion and a timely manner.

## **8. Work Habits**

- a. Student shall exhibit exemplary work habits worthy of the radiologic sciences.
  - Accepts work assignments readily.
  - Performs high quality work that is accurate, neat, and consistent.
  - Works well under pressure.
  - Provides timely, legible, and concise documentation of services on an ongoing basis or as requested by a supervisor.
  - Takes care of equipment and work areas.
  - Keeps current with all program and hospital policies / procedures.
  - Follows body substance, isolation, and all infection control guidelines as designated by hospital policy (i.e. Universal precautions whenever deemed appropriate as well as other personal protective devices as necessary.)
  - Complies with all aspects of the OSHA bloodborne standard protocol as designated by hospital policy.
  - Readily adjusts to changes in methods, procedures, working conditions, etc.....
  - Observes school hours and observes time clock regulations. Attends all class functions and clinical rotations with a minimum of absences.

## **9. Learning Environment**

- a. Hazards and Risks
  - Student may be exposed to infectious diseases and blood / body fluids when working with patients.
  - Student may be exposed to dust and some odors.
  - Students may be exposed to forms of ionizing radiation and will be provided with the appropriate shielding equipment and personnel monitoring devices.
- b. Working Conditions
  - Student will study and work in a clean, well-lit environment.
  - May be required to deal with unpleasant environmental situations resulting from patient activity.

## **10. Other Responsibilities**

- a. Utilizes program clinical assets appropriately.
- b. Conforms to all patient confidentiality policies as outlined by HIPAA.

# Student Radiation Therapist Job Description

## 1. Position: Student Radiation Therapist

Responsible to: Program Director

Clinical Coordinator  
Clinical Supervisors  
Department Directors  
Staff

## 2. Job Responsibilities (supervised by staff therapist):

- Responsible for safe operation of radiation therapy equipment for the sole purpose of cancer treatment.
- Establishes and maintains positive interpersonal relationships
- Utilizes time in an efficient manner
- Demonstrates reliability and punctuality
- Adheres to policies of MTI and the program, as well as those of any clinical site
- Demonstrates appropriate judgment and decision-making
- Performs other duties as assigned

## 3. Essential Job Functions and Responsibilities (The Student Radiation Therapist will perform all of the following under the supervision of an ARRT registered Radiation Therapist.)

- a. Prepare patient and adjust equipment in preparation for treatment Assist in instruction and education of the patient regarding their treatment experience.
- b. Conduct exams in other areas of the hospital with portable equipment
  - Transport equipment to such area as OR, ER, and patient rooms.
  - Observe sterile techniques and complete exam promptly.
- c. Prepare portal images when necessary for the radiation oncologist to view.
- d. Assist with staff/student on the job training and orientation.
- e. Assist with the collection and maintenance of records as required by accreditation standards, licensing bodies, OSHA, quality assurance, and the law.

#### 4. Work Habits

- a. Student shall exhibit exemplary work habits worthy of the radiologic sciences.
  - Accepts work assignments readily.
  - Performs high quality work that is accurate, neat, and consistent.
  - Works well under pressure.
  - Provides timely, legible, and concise documentation of services on an ongoing basis or as requested by a supervisor.
  - Takes care of equipment and work areas.
  - Keeps current with all program and hospital or clinic policies / procedures.
  - Follows body substance, isolation, and all infection control guidelines as designated by hospital policy (i.e. Universal precautions whenever deemed appropriate as well as other personal protective devices as necessary.)
  - Complies with all aspects of the OSHA blood borne standard protocol as designated by hospital or clinic policy.
  - Readily adjusts to changes in methods, procedures, working conditions, etc.....
  - Observes school hours and observes time clock regulations.
  - Attends all class functions and clinical rotations with a minimum of absences.

#### 5. Co-Worker / Patient Relations

- a. Student will constantly strive for a professional relationship with MTI, clinical sites, and especially patients.
  - Establishes a rapport with co-workers, faculty, physicians, and/or other students and is generally a “team” player.
  - Gives credit to fellow students or coworkers for their efforts and contributions.  
**Refrains from malicious gossip.**
  - Is receptive to constructive suggestions offered by others.
  - Shares responsibility, offers assistance to co-workers and patients by promptly responding to requests and needs.
  - Conveys enthusiasm and sincerity. Projects an image of professionalism through appropriate attire and mannerisms.
  - Wears proper identification.
  - Addresses and acknowledges faculty, staff, physicians, and patients as appropriate.

## **6. Physical Demands and Working Conditions:**

Heavy work requiring pushing, pulling, carrying, holding, lifting, and exerting up to 100 lbs. of force occasionally and/or up to 50 lbs. of force frequently and/or up to 20 lbs. of force constantly in order to move objects like the human body and equipment. Good manual dexterity is necessary for dialing, filing, grasping, holding, stapling, turning, typing, opening, reaching, removing, sorting, and writing. Up to 90% of the schedule involves standing or walking. Good hearing and communication skills are necessary for dealing with therapists, patients, visitors, nurses, physicians, and other staff. Because of the hazard of ionizing radiation exposure, particular standards and procedures must be followed.

## **7. Continuing Education and Professional Development**

- a. Students shall make every attempt to better themselves professionally.
  - Consistently and regularly attends scheduled class.
  - Attends departmental staff meetings as required
  - Attends mandatory in-service sessions.
  - Conforms to program policies regarding presentation of written report for attendance of conventions.
  - Willingly completes special assignments in a quality fashion and a timely manner.

## **8. Professional Affiliations:**

ARRT

ASRT

SDSRT (Student Radiologic Technologists will be required to attend the annual meeting during their second year of training)

## **9. Learning Environment**

### a. Hazards and Risks

- Student may be exposed to infectious diseases and blood / body fluids when working with patients.
- Student may be exposed to dust, odors and other allergens
- Students may be exposed to forms of ionizing radiation and will be provided with the appropriate shielding equipment and personnel monitoring devices.

### b. Working Conditions

- Student will study and work in a clean, well-lit environment.
- May be required to deal with unpleasant environmental situations resulting from patient activity.

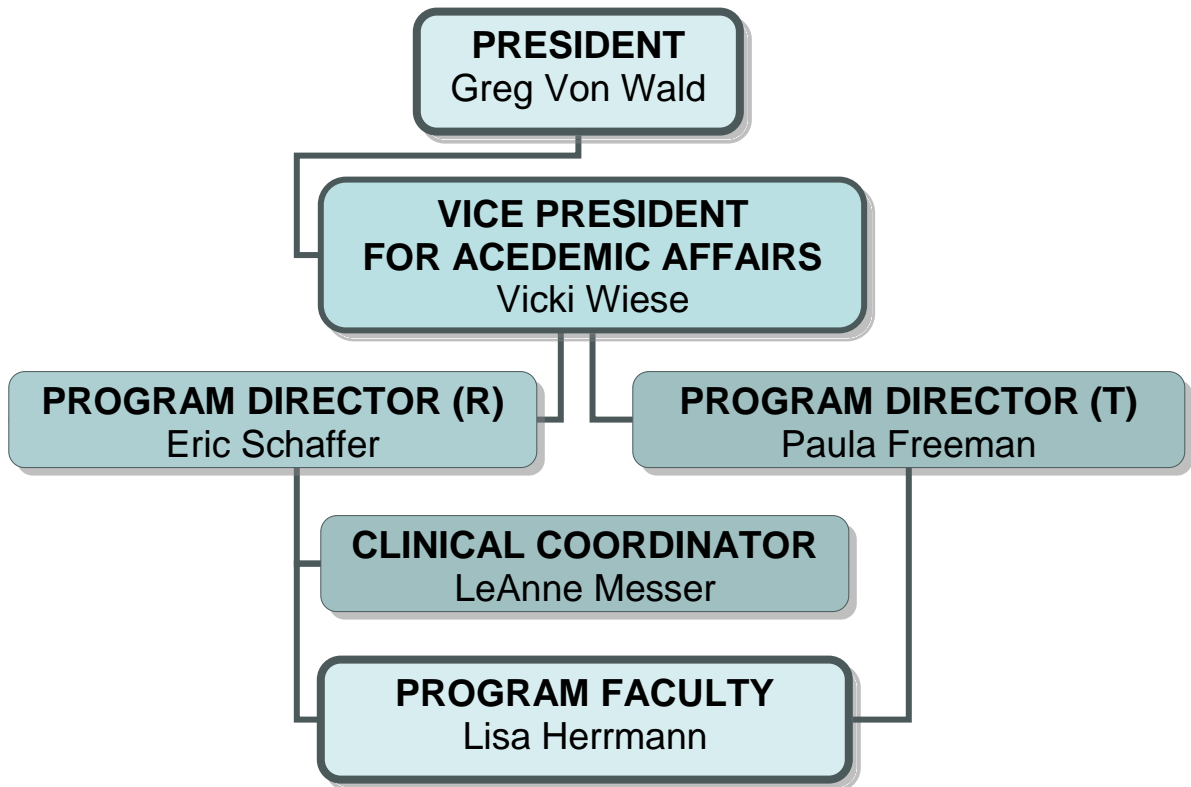
## **10. Other Responsibilities**

- a. Utilizes program clinical assets appropriately.
- c. Conforms to all patient confidentiality policies as outlined by HIPAA.
- d. Treats patients and their families along with all staff and faculty with respect

### **ASRT Code of Ethics for the Radiation Therapist**

1. The radiation therapist advances the principal objective of the profession to provide services to humanity with full respect for the dignity of mankind.
2. The radiation therapist delivers patient care and service unrestricted by concerns of personal attributes or nature of the disease or illness, and without discrimination on the basis of sex, race, creed, religion or socioeconomic status.
3. The radiation therapist assesses situations exercises care, discretion and judgment; assumes responsibility for professional decisions and acts in the best interest of the patient.
4. The radiation therapist adheres to the tenets and domains of the scope of practice for radiation therapists.
5. The radiation therapist engages in lifelong learning to maintain, improve and enhance professional competence and knowledge.

# MTI Department of Radiologic Sciences Organizational Chart





## Organizations

### **The Joint Review Committee on Education in Radiologic Technology (JRCERT)**

The JRCERT provides consultation and guidance to educational programs and administers the voluntary peer review accreditation process in Radiologic Technology and Radiation Therapy Technology. The JRCERT is dedicated to excellence in education and to quality patient care through the accreditation of educational programs in radiation and imaging sciences.

Address: 20 N. Wacker Drive, Suite 2850  
Chicago, Illinois 60606-3182  
Phone: 312-704-5300  
Web: [www.jrcert.org](http://www.jrcert.org)

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### **The American Society of Radiologic Technologists (ASRT)**

The ASRT is a professional membership organization representing the interests of radiographers, radiation therapy technologists, and nuclear medicine technologists according to the purpose and goals stated in the by-laws. The ASRT sponsors numerous educational programs for all ranks of technologists and holds an annual meeting with a wide range of professional continuing education offerings. The ASRT developed and publishes the *Curriculum Guide for Educational Programs in Radiologic Technology* and provides for periodic review of curricula in Radiologic Technology.

Address: 15000 Central Ave SE  
Albuquerque, New Mexico 87123  
Phone: 1-800-444-2778  
Web: [www.asrt.org](http://www.asrt.org)

## **The American Registry of Radiologic Technologists (ARRT)**

The ARRT administers a comprehensive written examination to graduates of educational programs in Radiography, Radiation Therapy Technology, and Nuclear Medicine Technology. Graduates who pass the ARRT's examination are certified in the appropriate discipline. Subspecialty examinations are offered in the areas of Cardiovascular-Interventional Technology, Mammography, Computed Tomography, Quality Management and Magnetic Resonance Imaging.

The ARRT is not involved in the accreditation process, but does require evidence that candidates for certification are graduates of an accredited program. The ARRT maintains a registry of certified technologists in all disciplines of Radiologic Technology

Address: 1255 Northland Drive  
Mendota Heights, Minnesota 55120

Phone: (651)-687-0048

Web: [www.arrt.org](http://www.arrt.org)

## **ASRT Code of Ethics**

Revised and adopted by the ASRT and ARRT, August 1997

1. The radiologic technologist conducts himself or herself 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 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 purpose 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 health care 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.

# ***ADMISSIONS PROCEDURES***

## Requirements for Admission

### Admissions Non-Discrimination Policy Statement (As printed in the MTI catalog):

MTI does not discriminate in its employment of policies and practices, or in its educational programs on the basis of race, color, creed, religion, age, sex, disability, national origin, or ancestry.

Inquiries concerning the application of Title VI, Title IX, or Section 504 may be referred to:

US Dept of Education  
Office for Civil Rights  
10220 N Executive Hills Blvd. 8<sup>th</sup> Floor  
Kansas City, MO 64153-1367  
Phone: (816) 880-4202  
Fax: (816) 891-0644

### Qualifications for Admission (Radiologic Technology):

1. Applicant must be in good health and be able to comply with the “Physical Demands and Working Conditions” as outlined in the Student Radiologic Technologist job description. Applicants must also meet the immunization requirements.
2. The applicant must be a high school graduate or have equivalent certificate.
3. Applicants are encouraged to submit American College Testing Program (ACT) scores. Scores must be from within the last 10 years to be considered valid. All applications are graded with an objective point system, so not submitting a valid ACT score will affect the total number of points that an application receives, but does not exclude them from applying.
4. Applicant’s overall high school GPA must be at least 2.0 on a 4 point scale.

### Qualifications for Admission (Radiation Therapy):

1. Completion of packet and required information
2. Graduate from a JRCERT accredited or equivalent Radiography Program with a GPA OF 3.0 or higher.

Certification in Radiography from the ARRT or if you are a current Radiography student a letter of recommendation from Program Director.

General education Prerequisites must include:

Human Anatomy  
Human Physiology  
General Physics

College Algebra  
Computer Science

Written / Verbal  
Communication

## **Admission Process:**

1. Obtain application packet from MTI admissions office.
2. Submit necessary information to the admissions office no later than January 15<sup>th</sup> of the year of planned attendance.
3. If admission requirements are met, the applicant will be notified about personal interviews to be held in January.
4. Acceptance of students is based on an interview point system. The school admission committee rates each applicant according to a documented point scale. This scale assists the committee in selecting prospective students.

## **Re-admission Process**

In order for a student to be re-admitted to the program after leaving, several requirements must be met:

1. The student must have withdrawn on their own accord and in good standing.
2. The student has not been withdrawn for more than one year. If this is the case, all technical courses must be repeated.
3. Students will be re-admitted only in the event that there is a vacancy in the class behind them.
4. Applications of students who are withdrawn for more than one year will be considered with all other applications received for that year.

## **Pre-training Health Assessment / Immunization**

The MTI Department of Radiologic Sciences does not require a physical before entrance to the clinical portion of the program is granted. However, the program suggests that all applicants review the physical requirements and working conditions listed in the respective program student job descriptions.

The MTI Department of Radiologic Sciences does require certain immunizations before the student will be allowed to perform clinical rotations. These immunizations are required out of concern for student health and safety in the clinical setting. Documentation must be presented at program orientation. The Hepatitis B series must be completed before clinical rotations may be started.

Certain clinical sites may require mandatory drug testing. Students assigned to these sites will be required to participate.

The following immunization requirements must be met before entrance to the program is granted:

1. A Mantoux skin test and/or an evaluation for active TB for those persons that have a history of positive skin testing in the last 12 months.
2. A rubella titer showing immunity and/or a record of a second dose of MMR.
3. A record of Hepatitis B vaccine.
4. A record or history of chicken pox and/or Varicella vaccine.
5. A record of Tdap vaccine.

## **Estimated Program Costs**

Estimated program costs are available in the MTI catalog.

The student will be responsible for certain miscellaneous expenses:

1. Travel to and from clinical sites.
2. Meals
3. Housing

## **Refund Policy**

Students who leave the program and desire a financial refund of tuition should refer to the MTI student handbook for details.

## **Financial Aid**

Students enrolled in the program will be eligible for financial aid on an individual basis. The student should fill out a FAFSA (Federal Application for Student Aid) to determine what assistance is available. Any questions should be directed to the MTI Financial Aid Office.

## **Transfer Students**

Transfer students are accepted at the discretion of the program director. Any prospective transfer student must meet the following criteria before being considered:

1. Must have attended a JRCERT accredited program with no more than 12 months lapse in attendance.
2. Prospect must meet the minimum admission requirements as set forth by the program.
3. The total time of training between the previous program and the MTI program shall be no less than 24 months for radiology and 12 months for radiation therapy.
4. The Program Director and the student must agree upon classes or clinical requirements necessary to complete the program.
5. Transcripts must be forwarded directly from the student's previous program of attendance.
6. The program director reserves the right to contact the students past instructors for reference.

## **Course Retakes**

Students that do not pass a particular course, must successfully pass the course within 2 attempts or 2 years of initial enrollment in the course, whichever comes first. Students that do not pass a course are mandated by individual prerequisite requirements for subsequent courses. If the course is a pre-requisite for subsequent courses, the student will not be allowed to continue in the program.



# ***CURRICULUM***

## **Radiologic Technology Program Description**

The program consists of two primary components: Didactic and clinical experience. The didactic, or classroom portion, teaches the student the fundamental principles of x-ray production, recognition of radiographic pathology, basic positioning skills, radiographic anatomy, etc.... The clinical portion allows the student to gain practical experience in a real life situation and to practice what they have previously learned in the classroom. The program has 9 clinical locations. Students attend 1 year of coursework at MTI and then are assigned to a set of clinical sites. These sites are centered around 2 geographic locations within SD. 7 students will be assigned to rotate through the 5 sites in the Watertown area and 8 students will be assigned to rotate through the 4 sites in the Mitchell area.

The curriculum is designed around “The Professional Curriculum for Radiography” as published by the ASRT. The curriculum is also designed to meet the standards of the Joint Review Committee on Education in Radiologic Technology (JRCERT), which is the accrediting body for radiologic sciences.

Following satisfactory completion of the program, a student will be eligible to sit for the national registry as conducted by the ARRT. Once the registry has been successfully passed, the student becomes a registered technologist and is entitled to all the rights and privileges of that title.

# **Mitchell Technical Institute**

## **Radiation Therapy Program Description**

The Radiation Therapy program will utilize didactic, laboratory and clinical education to prepare students to work as Radiation Therapists in cancer treatment centers, hospitals, clinics, private office and research centers. Radiation Therapists work under the direction of a radiation oncologist to treat patients with malignant diseases using ionizing radiation. Radiation Therapists practice appropriate patient care, apply problem-solving and critical thinking skills, administer treatment protocols, and maintain patient records. The program will use a combination of technical and general education courses to emphasize decision making and critical thinking skills based upon a solid clinical foundation.

The degree of Associate of Applied Science in Radiation Therapy will be awarded upon completion of the program.

The program will be dedicated to offering students the experience and overall training to become successful Radiation Therapists. The program will provide attention to professionalism, communication and total patient care. At the conclusion of the program, the student will be prepared:

- To administer radiation therapy by exposing specific parts of the patient's body to prescribed doses of radiation and reposition the patient if the patient moves during the procedure
- To monitor and report patients' side effects or adverse reactions such as vomiting and hair loss to physicians
- To perform quality controls on the equipment and maintain radiation safety for patients, clinical personnel and themselves while carrying out duties
- To assist in the treatment planning procedure, including tumor localization and dosimetry (calculation of the radiation dosage)
- To give instructions to patients, peers and healthcare personnel
- To evaluate film images and to identify corresponding treatment areas located on the patient's body
- To use interpersonal skills to professionally and sensitively interact with patients who are experiencing physical and emotional trauma
- To use oral and written communication to access clinical records, comprehend and employ appropriate medical terminology and interact with the physician regarding treatment data
- To meet the requirements established for national registration in radiation therapy
- To function as an active member of the health care team
- To broaden their knowledge bases through study in general education
- To foster independent thinking and lifelong learning skills
- To graduate from a program of quality with program goals, learning outcomes, and JRCERT standards for course completion, graduation, national registry exam success and job placement.

## Faculty Roster

Radiologic Technology Program Director:	Eric Schaffer BS, RT (R)(CT)
Radiologic Technology Clinical Coordinator:	LeAnne Messer BS, RT (R)
Radiation Therapy Program Director:	Paula Freeman RT (R)(T)
Program Faculty:	Lisa Herrmann M.Ed., RT (R)(T)
Radiologic Technology Medical Director:	Carey Buhler, MD
Radiation Therapy Medical Director:	Michael Peterson, MD

### **Additional Clinical Personnel (Radiography)**

<u>Avera Queen of Peace</u>	Mandy Robinson, RT (R)(M)
<u>Mitchell Clinic</u>	Sharon Young RT (R)
<u>Mitchell Orthopedic Center</u>	Jane Amick RT (R)(M)
<u>Prairie Lakes Healthcare System</u>	Collin Janes RT (R)
<u>Brown Clinic</u>	Ali Reidburn RT (R)
<u>Sanford Clinic</u>	Lorraine Shuller RT (R)
<u>Glacial Lakes Orthopedic Center</u>	Cheri Beadnell RT (R)(M)
<u>Ortonville Area Medical Center</u>	April Staehling RT (R)

## **Additional Clinical Personnel (Therapy)**

Avera Queen of Peace

Charlene Schroeter – Berke RT  
(R), (T)

Prairie Lakes Cancer Center

Lori Kasuske RT (R)(T)

John T. Vacurevich Cancer Care Institute

Tina Scott RT (R)(T)

Avera Sacred Heart Cancer Center

Julie Steffen RT (R)(T)

Christi Jensen RT (R)(T)

Carson Cancer Center

Loretta Hockemeier RT (R)(T)

Abben Cancer Center

Sondra Brix RT (R)(T)

June E Nysten Cancer Center

Ashley Croatt RT (R) (T)

## **Radiologic Technology Advisory Board**

Dave McGee	Dr. Carey Buhler
Jason Merkley	Pat Sudbeck
Greg Von Wald	Vicki Wiese
Michael Hoffman	Janet Greenway
Julie Brookbank	Tim Edwards
Lynn Smith	LeAnne Messer
Eric Schaffer	Student Representative
Tom Beaudry	Ruth Swartout
Mandy Robinson	Jane Amick
School Board Representative	

## **Radiation Therapy Advisory Board**

Paula Freeman	Dr. Michael Peterson
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Michael Hoffman	Julie Brookbank
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Lisa Herrmann	Charlene Schroeter-Berke
Ashley Croatt	Kris VanKleek
Darla Gullikson	Julie Steffen
Lori Kasuske	
School Board Representative	

**FIRST SEMESTER : Fall**

RAD 111	Introduction to Rad Tech and Ethics	3	
RAD 112	Radiation Physics I	2	
RAD 113	Radiographic Exposure and Technique	4	
RAD 114	Rad Procedures I	4	
MA 101	Medical Terminology I	2	
MA 103	Anatomy / Physiology	4	
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**SECOND SEMESTER : Spring**

RAD 121	Imaging Equipment	2	
RAD 122	Radiation Physics II	2	
RAD 123	Radiation Biology	3	
RAD 124	Rad Procedures II	4	
RAD 125	Image Critique I	2	
ENGL 101T	Composition I	3	
CIS 105	Complete Microcomputer Concepts	3	
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**THIRD SEMESTER : Summer**

RAD 131	Introduction to Clinical Radiology	2	
RAD 132	Topics in Radiography	2	
RAD 133	Digital Imaging	2	
RAD 134	Rad Procedures III	4	
RAD 135	Image Critique II	2	
RAD 136	Radiographic Pathology	3	
	Mathematics Elective	3	
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		18	

**FOURTH SEMESTER : Fall**

RAD 211	Clinical Radiology I	11	36/wk
RAD 212	Registry Review I	1	
	Behavioral Science Elective	3	
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		15	

**FIFTH SEMESTER : Spring**

RAD 221	Clinical Radiology II	11	36/wk
RAD 222	Registry Review II	1	
	Social Science Elective	3	
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		15	

**SIXTH SEMESTER : Summer**

RAD 231	Clinical Radiology III	11	36/wk
RAD 232	Registry Review III	1	
RAD 233	Sectional Anatomy	3	
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		15	

This schedule may be subject to change.

## ***Radiologic Technology Course Outline***

<b><u>COURSE</u></b>	<b><u>CREDIT</u></b>
RAD111 Introduction to Radiologic Technology and Ethics	3
RAD112 Radiation Physics I	2
RAD113 Radiographic Exposure and Technique	4
RAD114 Radiographic Procedures I	4
MA101 Medical Terminology	2
MA103 Anatomy and Physiology	4
RAD121 Imaging Equipment	2
RAD122 Radiation Physics II	2
RAD123 Radiation Biology and Protection	3
RAD124 Radiographic Procedures II	4
RAD125 Image Critique I	2
ENGL101T Composition I	3
CIS105 Complete Microcomputer Concepts	3
RAD131 Introduction to Clinical Radiography	2
RAD132 Topics in Radiography	2
RAD133 Digital Imaging	2
RAD134 Radiographic Procedures III	4
RAD135 Image Critique II	2
RAD136 Radiographic Pathology	3
Mathematics Elective	3
RAD211 Clinical Radiology I	11
RAD212 Registry Review I	1
Behavioral Science Elective(Online)	3
RAD221 Clinical Radiology II	10
RAD222 Registry Review II	1
Social Science Elective (Online)	3
RAD231 Clinical Radiology III	10
RAD232 Registry Review III	1
RAD233 Sectional Anatomy	3
TOTAL	101



## **COURSE DESCRIPTIONS**

### **(RAD111) INTRODUCTION TO RAD TECH AND ETHICS**

This course serves as an introduction to the field of Radiologic Technology. It includes an introduction to basic nursing, terminology, radiation protection, law, ethics, and imaging equipment. Special emphasis is placed on ethical codes, confidentiality, patient rights, and humanistic health care.

### **(RAD 112) RADIATION PHYSICS I**

This course provides a description of the basic physical principles of measurement, energy, atomic structure, electricity, magnetism, and their application to radiation production.

### **(RAD 113) RADIOGRAPHIC EXPOSURE AND TECHNIQUE**

Included is an overview of how the X-ray machine produces x-radiation. This course is designed to create a foundation for understanding the principles of radiographic technique and quality. Emphasis is on radiographic image quality through presentation of prime exposure factors, solving technical problems, and making adjustments to correct those problems.

### **(RAD 114) RADIOGRAPHIC PROCEDURES I**

This course will provide the student with the knowledge necessary to perform radiographic procedures relative to the upper and lower extremities. Emphasis will be placed on radiographic terms, detailed anatomy, positioning manipulation of equipment and accessories, and related patient care.

### **(MA 101) MEDICAL TERMINOLOGY I**

Vocabulary and terms used in the medical professions. Meanings of root words, prefixes, and suffixes are studied. Proficiency is gained in analyzing medical words and in understanding of how the word elements relate and apply to medicine.

### **(MA 103) ANATOMY/PHYSIOLOGY**

Basic anatomy and physiology of the human body. Systems studied include integumentary, musculo-skeletal, nervous, circulatory, lymphatic, respiratory, urinary, digestive, endocrine and reproductive.

### **(RAD 121) IMAGING EQUIPMENT**

This course will provide the student with knowledge of the equipment routinely used to produce radiographic images. It includes the discussion of various imaging modalities and recording media including fixed and portable radiographic equipment. It also includes discussion of the basic physical principles behind CT and MRI. **Prerequisites:** All previous technical courses

## **(RAD 122) RADIATION PHYSICS II**

This course is a follow-up to RAD 122 focusing primarily on review prior to the student's participation in the registry examination. It reinforces the basic physical principles of measurement, energy, atomic structure, electricity, magnetism, and their application to radiation production. Students also study x-ray production, scatter radiation, and x-ray circuitry. Students are required to assist with instruction of this course. **Prerequisites:** All previous technical courses

## **(RAD 123) RADIATION BIOLOGY AND PROTECTION**

This course is a study of the principles of cell radiation interaction. Students study factors affecting cell response to acute and chronic results of radiation. Principles of radiation protection and responsibility by the radiographer to patients, personnel, and the public are presented. Maximum permissible dose and regulatory policy are also discussed. **Prerequisites:** MA 101, MA 103, All previous technical courses

## **(RAD 124) RADIOGRAPHIC PROCEDURES II**

This course will provide the student with the knowledge necessary to perform radiographic procedures relative to the spine, pelvis, ribs, sternum, hip, skull, facial bones and sinuses. Emphasis will be placed on radiographic terms, detailed anatomy, positioning manipulation of equipment and accessories, and related patient care. **Prerequisites:** MA 101, MA 103, All previous technical courses

## **(RAD 125) IMAGE CRITIQUE I**

This course provides students with the knowledge needed to evaluate radiographic examinations, and to identify and recognize diagnostic quality. Coursework will concentrate of the study of the guidelines for image analysis and the upper and lower extremity systems. **Prerequisites:** MA 101, MA 103, All previous technical courses

## **(ENGL 101T) COMPOSITION I**

Intensive academic writing practice in communication. This course is designed to help the student produce clear, effective writing. Standard English grammar, usage, and punctuation, in connection with writing structure, are reviewed. Expository essays and a research paper are included as course assignments. **\*\*Prerequisite:** ENGL 098 or qualifying placement score.

## **(CIS 105) COMPLETE MICROCOMPUTER CONCEPTS I**

Course introduces computer concepts, terminology, and hardware structure. Special emphasis on operating systems, word processing, databases and spreadsheets is stressed.

## **(RAD131) INTRODUCTION TO CLINICAL RADIOLOGY**

This course is a laboratory course that will introduce the student to the clinical aspect of their training. Instruction will parallel that of RAD 111 and include many competencies necessary for clinical success. Students will be introduced to the clinical setting under close and direct supervision. **Prerequisites:** MA 101, MA 103, All previous technical courses

## **(RAD 132) TOPICS IN RADIOGRAPHY**

This course includes preparation and presentation of scientific papers and exhibits. **Prerequisites:** CIS 105, MA 101, MA 103, All previous technical courses

## **(RAD 133) DIGITAL IMAGING**

During this course, students yada, yada, yada...blah, blah, blah. **Prerequisites:** All previous technical courses

## **(RAD 134) RADIOGRAPHIC PROCEDURES III**

This course will provide the student with the knowledge necessary to perform radiographic procedures relative to the chest, abdomen, urinary system, and digestive system. Emphasis will be placed on radiographic terms, detailed anatomy, positioning manipulation of equipment and accessories, and related patient care. Portable radiography will be introduced. **Prerequisites:** MA 101, MA 103, All previous technical courses

## **(RAD 135) IMAGE CRITIQUE II**

This course provides students with the knowledge needed to evaluate radiographic examinations, and to identify and recognize diagnostic quality. Coursework will concentrate of the study of the upper and lower extremities, spine, and skull. **Prerequisites:** MA 101, MA 103, All previous technical courses

## **(RAD 136) RADIOGRAPHIC PATHOLOGY**

This course will provide the student with the concept of disease and its effects on the human body. The relationship of pathology and diseases to various radiographic procedures and radiographs will be discussed. **Prerequisites:** MA 101, MA 103, All previous technical courses

## **MATH**

(Place description here)

## **(RAD 211) CLINICAL RADIOLOGY I**

*(36 hours clinical experience per week for approximately 18 weeks)* - This is the student's first clinical experience in performing as an actual part of the health care team. The student will begin to employ techniques and skills learned in RAD 114, 124, 134. The student will be required to prove competency in prescribed examinations. **Prerequisites:** All technical courses

## **(RAD 212) REGISTRY REVIEW I**

This course is designed to utilize a structured series of mock registry exams administered over the course of 3 semesters to assist the student in preparing for the real exam to be taken after graduation. This series of tests asks questions in a fashion similar to that of the actual registry exam. The student is able to locate areas of study that need improvement. **Prerequisite:** All technical courses

## **(PSYC 101T) PSYCHOLOGY (ONLINE)**

A psychology-based look at the personal adjustment and choices made by individuals in response to the world around them. Focuses on the individual's interpretation of social input and the influence of interpretations on social interaction. Designed to aid the student in understanding how the thoughts, feelings, and behavior of individuals are influenced by the actual, imagined, or implied presence of others.

## **(RAD 221) CLINICAL RADIOLOGY II**

*(36 hours clinical experience per week for 18 weeks)* - This clinical course is a continuation of RAD 211. The students will refine skills learned in the previous clinical course, while expanding their expertise with additional procedures. The student will be expected to become more independent in performing imaging procedures. Additional competencies will be required in prescribed examinations.

**Prerequisites:** All technical courses

## **(RAD 222) REGISTRY REVIEW II**

This clinical course is a continuation of RAD 212. It is designed to utilize a structured series of mock registry exams administered over the course of 3 semesters to assist the student in preparing for the real exam to be taken after graduation. This series of tests asks questions in a fashion similar to that of the actual registry exam. The student is able to locate areas of study that need improvement. **Prerequisite:** All technical courses

## **(SOC 285T)**

(Place description here)

## **(RAD 231) CLINICAL RADIOLOGY III**

*(36 hours clinical experience per week for 13 weeks)* This course is a continuation of RAD 221 and provides the student the opportunity to exercise independent judgment and discretion in the technical performance of medical imaging procedures. Students are expected to complete all required competencies in this rotation. The final section of clinical education ensures that the student is ready for employment. **Prerequisites:** All technical courses

## **(RAD 232) REGISTRY REVIEW III**

This clinical course is a continuation of RAD 222. It is designed to utilize a structured series of mock registry exams administered over the course of 3 semesters to assist the student in preparing for the real exam to be taken after graduation. This series of tests asks questions in a fashion similar to that of the actual registry exam. The student is able to locate areas of study that need improvement. **Prerequisite:** All technical courses

## **(RAD 233) SECTIONAL ANATOMY**

This class provides students with the tools for understanding anatomy in three dimensions. Students will be able to visualize anatomical appearance and relationships in a planar section following completion of this material.

Concentration will be on cranial, thoracic, abdominal, and pelvic structures. This is a self paced course with intermittent class times as indicated. **Prerequisites:** MA 101, MA 103, All technical courses

## Radiation Therapy (Credits)

### Fall Semester

Introduction into Radiation Therapy	3 Credits
Nursing and Patient Care Issues	3 Credits
Radiation Therapy Physics I	3 Credits
Radiation Therapy Physics II – Treatment Planning and Dosimetry	3 Credits
Clinical Radiation Oncology	4 Credits
Simulation and Medical Imaging	3 Credits
Radiation Biology	1 Credit
<b>TOTAL = 20</b>	

### Spring Semester

Radiation Therapy Topics	2 Credit
Clinical Practicum I	10 Credits
Registry Review I	1 Credits
<b>TOTAL = 13</b>	

### Summer Semester

Modern Radiation Therapy and Research	3 Credit
Clinical Practicum II	8 Credits
Registry Review II	1 Credits
Sectional Anatomy	1-3 Credits
<b>TOTAL = 13-15</b>	

**TOTAL CREDITS =46-48**

## Course Descriptions

### FALL SEMESTER

**RTH 200 INTRODUCTION INTO RADIATION THERAPY 2 credits**

This course is an exploration of the foundation of radiation therapy practices and the variety of roles for the professional in the delivery of health care. Principles of practice, professional responsibilities, medical law and ethics will be addressed along with program expectations. Topics revisited will include body mechanics, patient handling skills and infection control.

**RTH 201 NURSING AND PATIENT CARE ISSUES 2 credits**

This course will focus on the role of the radiation therapist in overall disease management. It will prepare students to work directly with patients in a health care setting and covers assessment, examination and monitoring of patients, symptom management and the management of oncologic emergencies. Patient issues such as pain control, nutritional counseling, patient education, death and dying will be explored. Chemotherapeutic drugs will be introduced and discussed.

**RTH 202 RADIATION THERAPY PHYSICS I 3 credits**

This course applies the concepts of radiation physics to therapy practice. Interactions of ionizing radiation, measurement of ionizing radiation and nuclear decay are discussed. This course will also provide the student with an understanding of the different types of radiation treatment units and their operating principles. Reviews of mathematics, basic principles of physics, atomic structure, electro-magnetic and particulate radiation, x-ray circuits, radiographic tubes and radiation production are included in this course.

**RTH 203 RADIATION THERAPY PHYSICS II 3 credits**  
**TREATMENT PLANNING AND DOSIMETRY**

This course will explore the concepts of radiation physics as it applies to the practice of radiation therapy. Scatter radiation analysis, isodose curves, patient contouring, dosimetric calculations, treatment planning procedures and electron beam therapy are introduced. **Pre-requisite: Radiation Therapy Physics I**

**RTH 205 CLINICAL RADIATION ONCOLOGY 4 credits**

This course will explore cancer: its detection, diagnosis and prognosis. The management of neoplastic disease and its mechanism of spreading through a multidisciplinary approach will be discussed. Rationale for treatment techniques such as beam type, dose fractionation, volume, simulation, beam modification devices, field arrangements, dose limiting critical structures as well as surgical and chemotherapeutic considerations are presented.

**RTH 206 SIMULATION AND MEDICAL IMAGING 3 credits (lab)**

This course introduces simulation equipment and techniques. Topics include patient immobilization, localization, simulation, documentation, patient positioning, treatment delivery parameters, prescriptions, and patient care. Imaging techniques specific to radiation therapy will also be discussed. A lab component is included in this course.

**RTH 207 RADIATION BIOLOGY 1 credit**

This course covers the biological effects of ionizing radiation in living tissue, including specific cell and tissue radiosensitivity, radiation syndromes and related effects, as well as basic biological mechanisms that bring about somatic and genetic effects.

## Spring Semester

**RTH 209 RADIATION THERAPY TOPICS 2 credits**

This course will explore various radiation therapy topics such as quality control programs and protocols for the radiation therapy department, various radiation therapy operational issues and CQI project development, evaluation and assessment techniques. Billing and reimbursement issues will also be presented

This course will also provide the student with the basic concepts of radiation sources: detection and measurement, shielding and room design, source handling, surveys and personnel monitoring, maximum permissible dose. Local, state and federal regulations will be discussed.

**Pre-requisites: Radiation Therapy Physics I & II**

**RTH 212 REGISTRY REVIEW I 1 credit**

This is an online course designed to prepare students for the required national certification exam. Mock board exams will be given along with various assignments geared to reinforce previously discussed concepts.

**RTH 210 CLINICAL PRACTICUM 10 credits**

The clinical practicum serves as an orientation to radiation therapy where students are given an opportunity to develop technical and patient care skills and knowledge through structured rotations and assignments in the radiation therapy department. Treatment competencies and related objectives will be used to measure clinical outcomes. Students are required to be at their respective clinical sites for approximately 40 hours per week during the 2<sup>nd</sup> and 3<sup>rd</sup> semesters for a total of 1200 hours.



## **SUMMER SEMESTER**

### **RTH 211      MODERN RADIATION THERAPY RESEARCH      3 credits**

This course is an online course designed to discuss the emerging technologies that are taking place in the world of radiation therapy. These emerging technologies will be discussed and researched by the student for the purpose of writing and presenting a scientific paper.

**Pre-requisites: Radiation Therapy Physics I & II**

### **RTH 214      REGISTRY REVIEW II      1 credit**

This is an online course designed to prepare students for the required national certification exam. Mock board exams will be given along with various assignments geared to reinforce previously discussed concepts.

### **RTH 213      CLINICAL PRACTICUM      8 credits**

The clinical practicum serves as an orientation to radiation therapy where students are given an opportunity to develop technical and patient care skills and knowledge through structured rotations and assignments in the radiation therapy department. Treatment competencies and related objectives will be used to measure clinical outcomes. Students are required to be at their respective clinical sites for approximately 40 hours per week during the 2<sup>nd</sup> and 3<sup>rd</sup> semesters for a total of 1200 hours.

### **RTH 215      SECTIONAL ANATOMY      3 credits**

This is an online course designed to provide the student with the tools for understanding anatomy in three dimensions. Students will be able to visualize anatomical appearance and relationships in a planar section following completion of this material. Concentration will be on cranial, thoracic, abdominal, pelvic and spinal structures.

# Grading Policy

The MTI Department of Radiologic Sciences requires students to know and understand presented material. It is for this reason that the department's grading policies require the student to attain a minimum GPA for each course. Students will be advised at least once each semester in order to track their continuing academic performance. The department believes that this evaluation of student learning is vital to continuing course improvement and to the ability of the student to perform well in the Registry exam.

## Academic Standards

The student must complete all technical courses with a minimum grade of "C" in order to become Registry eligible. Students who do not complete a course will be prevented from enrolling in subsequent courses due to pre-requisite requirements. If a student fails a course, they will be required to retake the course the next time it is offered. This will be possible **only** if there is a vacancy in the class. Each program has a maximum number of students dictated by the faculty and number of clinical sites available. Exceeding this number is not permitted. Students will only be allowed to re-take 2 courses per 1<sup>st</sup> or 2<sup>nd</sup> year period. If more than 2 courses are failed in one year, the policy for unsatisfactory progress will be instituted. Individual cases may be handled in individual fashions at the discretion of the Program Director.

The following grading scale will be used for all technical related courses:

A	90-100	4.0
B	80-89	3.0
C	70-79	2.0
Fail	Below 70	0

Grades will be issued at the end of each semester and will be comprised of didactic and/or clinical scores. The student may request a meeting with any departmental faculty to discuss grades if they desire.

## Missed/Make-up work

Late assignments will be penalized 10% per school day.

If a student misses a quiz or test due to illness, they will be allowed to take a make-up test. It is left to the discretion of faculty to determine the nature of the make-up test. Faculty reserves the right to handle cases on an individual basis.

Missed assignments due to illness will be accepted for full credit upon the student's return (within a time frame equal to the number of days missed). After that point, the late assignment policy will be enforced. Some situations may vary. Missed assignments, quizzes, tests, etc... for personal days must be made up prior to the personal day or other arrangements must be made with the instructor.

## Unsatisfactory Progress

The MTI Department of Radiologic Sciences will make every attempt to assist students having problems whether they are clinical, didactic, personal, illness, etc.

Any student who does not meet the standards set forth in the handbook will be subject to disciplinary action:

1<sup>st</sup> offense – The student will have a documented oral conference with the appropriate program faculty to discuss the problem. A disciplinary action form will be completed and inserted into the student file

2<sup>nd</sup> offense – The student will receive a second conference and a written disciplinary action form. The student will also be put on 8 weeks probation or for the remainder of the semester, whichever is longest.

3<sup>rd</sup> offense – If the student violates probation, they may be subject to dismissal from the program.

**NOTE:** Faculty may also choose to simply document conferences for various reasons. A "counseling record" may be used to record the date and topic of the conversation between the student and faculty. These are not always negative and are simply a method of documentation.

Dismissal procedures will be initiated at the discretion of the Program Director\*. If the Program Director chooses not to dismiss a student, other disciplinary methods may be applied (i.e. suspension). If a student's violations fall within the academic portion of the program, the student may be allowed to re-apply to the program the following year. Individual cases may vary.

\*All dismissal procedures will be initiated by the Program Director, but will be conducted with the cooperation of:

- MTI Vice President of Academic Affairs
- Clinical Coordinator /Supervisor (When applicable)
- Medical Director (When applicable)

**\*\*\*NOTE: IF A STUDENT REQUIRES DISCIPLINARY ACTION, THEY MAY BE REQUIRED TO REPORT TO THE MTI CAMPUS\*\*\***

## **Clinical Education and Rotations for Radiologic Technology**

Clinical rotations will be conducted at various sites in the Mitchell or Watertown areas. Each student will rotate through varying shifts at varying locations. Students are responsible for transportation to and from clinical sites.

Each student will be assigned an 8-hour shift (7-3:30, 7:30-4, 8:30-5, 12-8:00, etc...). They are required to utilize the timeclock as directed. If there are no exams to be done and their area is clean, students may study in an area away from patients when indicated by the clinical supervisor.

Students will rotate through an evening/weekend shift. The shift will consist of four 8-hour days and one day off during each week on either side of their scheduled weekend.

2<sup>nd</sup> year students will be required to take backup call starting in the 5<sup>th</sup> semester.

No student shall be required to work more than 40 hrs/week. However, the faculty reserves the right to recommend (not require) that they spend additional time in the clinical environment due to poor or lacking clinical performance. This may include time that the student might normally be on break or otherwise away from the program. Clinical clock hours represent roughly 1/4 of a credit.

Clinical evaluation tools will vary according to the clinical site and the goals for that rotation. The student's clinical grades will be a combination of these evaluations and clinical competencies completed.

### **NOTE:**

The field of Radiologic Technology is one that requires close patient/caregiver contact. The student radiographer needs to be aware that the art of accurate patient positioning requires the use of anatomical landmarks. Students will be instructed how to locate these landmarks, perhaps during a demonstration by faculty on another student. Program faculty assures the student that any contact between the instructor and the student during these sessions is strictly for medical instruction and for the benefit of the class.+

## **Clinical Education and Rotations for Radiation Therapy Technology**

Clinical rotations will be conducted at various sites through out the states of South Dakota, Iowa and Nebraska. Each student will rotate through varying shifts at varying locations. Students are responsible for transportation to and from clinical sites as well as housing.

Each student will be assigned an 8-hour shift Monday through Friday not to exceed 40 hours per week. They are required to utilize the timeclock as directed. If there are no patients to be treated or procedures to observe the student may study in an area away from patients when approved by the clinical supervisor.

No student shall be required to work more than 40 hrs/week. However, the faculty reserves the right to recommend (not require) that they spend additional time in the clinical environment due to poor or lacking clinical performance. This may include time that the student might normally be on break or otherwise away from the program.

Clinical evaluation tools will vary according to the clinical site and the goals for that rotation. The student's clinical grades will be a combination of these evaluations and clinical competencies completed.

### **NOTE:**

The field of Radiation Therapy is one that requires close patient/caregiver contact. The student therapist needs to be aware that the art of accurate patient positioning requires the use of anatomical landmarks. Students will be instructed how to locate these landmarks, perhaps during a demonstration by faculty on another student. Program faculty assures the student that any contact between the instructor and the student during these sessions is strictly for medical instruction and for the benefit of the class.

## ***POLICIES AND PROCEDURES***

# Access to Student Records

(As taken from the MTI handbook)

## **The Family Education Rights and Privacy Act of 1974**

The Family Education Rights and Privacy Act of 1974 (FERPA) is a federal law designed to protect the privacy of a student's personal educational records. The law provides that the Institute will maintain the confidentiality of each student's educational records and covers matters related to access to student records and the disclosure of such records.

**1. Basic Policy** – No information other than Directory Information shall be released without written permission from the student. Permission is valid for one year from the date it was written. This means that written and dated permission is required from a student before information can be released to a student's parent or legal guardian. This also means that, at no time, shall any information other than Directory Information be released over the telephone because the caller's identification cannot be determined.

**2. Directory Information** - The federal privacy act defines certain information as Directory Information. MTI personnel may, upon request, orally, in writing, or electronically disclose Directory Information including:

- Student's name
- Major field of study
- Dates of attendance
- Current and past course registration(s)
- Degrees and awards received
- Most recent previous educational institution attended
- Participation in officially recognized activities and sports
- Weight and height of athletic team members
- Information which denotes accomplishments or achievements
- Individual and group photographs

Although directory information is public, MTI personnel are encouraged to use professional discretion in the release of this information. *Mass information requests of Directory Information for solicitation purposes will not be granted.*

**3. Student Directory** - A student photo directory is published annually by MTI. Student photos will be included along with a student's name, address, phone, program, and hometown. Students may choose not to have any of the above information included by completing the authorization form at the time their photos are taken.

**4. Withholding Directory Information** - A student may request to have any or all Directory Information withheld for a period of one term. This may be done by completing a release form at the beginning of each year. The release form is only valid for that year.

**5. Exceptions to the Basic Policy** – No one other than MTI personnel shall have access to, nor will the school disclose, any information from the student’s educational records (other than Directory Information noted previously) without the written consent of the student except as follows:

1. Providers of financial aid.
2. Accrediting agencies carrying out accreditation functions.
3. A judicial order.
4. An emergency situation as determined by the Director, Assistant Director, or designee.
5. **Additional Student Rights** - FERPA provides an opportunity for a student to inspect and review his/her educational records. It requires that students be notified about rights and existing records via at least one publication, which is distributed to the entire community. It also permits the student to request an opportunity for a hearing to challenge the content of educational records believed to be inaccurate or misleading or in violation of the student’s right to privacy or other rights (for information, contact the Assistant Director).
6. All students wishing to review a copy of their educational record must present valid identification.
7. All students wishing to receive a copy of their educational records must make a written request to the Assistant Director’s Office. There are pre-determined fees for copies of a student’s educational records. A one-week turnaround is required. Transcripts will not be released if a financial hold exists on a student. Except in unusual circumstances, MTI will not make copies of source documents (high school or college transcripts) that originated at another agency or institution.
8. **Responsible Office** – The Registrar or designee is the MTI official who coordinates inspection, review, and/or disclosure procedures for student educational records. For further questions related to the release of student record information, please contact the Registrar’s Office.

Permanent Records/Transcripts: Permanent records are kept on all students. Official transcripts of this information will be issued on the following basis:

9. Final transcripts are issued to graduates. The first copy is free. Subsequent copies will cost \$2.00 each.
10. All requests for transcripts will be made in person or in writing (each time the transcript is needed) with the following exception: Students may authorize the Mitchell Technical Institute to release their transcript to potential employers for use in the consideration of employment by checking the appropriate box on the registration card.
11. If requesting transcripts by mail, a student must provide the name under which he or she was enrolled, the department, Social Security number and the years attended.
12. Official transcripts are mailed to a person other than the student in a sealed, labeled envelope.
13. Transcripts issued to students are labeled as “Issued to Student”.



## Attendance Policies

### Bereavement Leave:

Students who experience the loss of an immediate family member (mother, father, stepmother, stepfather, brother, sister, spouse, in-laws, child or stepchild) will be allowed 5 working days off. These hours will be awarded with no requirement to make them up, but class work must be completed for the missed time.

Students who experience the loss of a grandparent will be granted 1 working day to attend funeral services. These hours will be awarded with no requirement to make them up, but class work must be completed for the missed time.

Students who experience the loss of loved ones other than those previously mentioned may take personal leave or days from their sick leave. All arrangements must be made with the program director.

### Class Attendance:

Students are required to attend all classes. If a student misses two classes without prior approval of the program director, they will automatically receive a failing grade for that course.

Weather related cancellation or postponement of classes will be announced by MTI or LATI, respectively. However, students are encouraged to use their own best judgment when deciding whether or not to attempt travel to a clinical rotation. **If the student makes the decision not to attend clinical rotations because of inclement weather, they will be assessed a personal day, unless otherwise instructed by faculty. Students will not be allowed to go to another clinical site for that day unless authorized by the faculty.** Students scheduled for weekend shifts will contact program faculty to determine the need to attend assigned clinical rotations during inclement weather.

### Holidays:

Students will observe the same holiday schedule as Mitchell Technical Institute, when applicable. Holidays observed during summer months include Memorial Day and July 4.

If a student is scheduled for weekend clinical rotation on a holiday weekend, they are responsible to attend that rotation. If the holiday falls on a scheduled day off, the student is entitled to take a different day off during the same 40 hour period.

Students will not be required to attend weekend rotations associated with the following holidays:

- Spring break, Thanksgiving

## **Illness / Personal Leave:**

Students will be allowed a total of 5 days for each year of the program training period to be used in the case of illness or emergency (at the student's discretion). A maximum of 2 students per clinical setting (Mitchell or Watertown) are allowed personal days on the same day (Not applicable to Therapy). Personal days must be taken as a whole day. They cannot be broken down into hours. If a student has no personal days left and misses classes for more than two days due to the same illness, a doctor's note will be required. Students who miss more than 4 days for the same illness will not be required to use all of their personal leave. They will have the option of using any combination of remaining personal days and scheduled make up days. Make up days must be scheduled for one of three times: Christmas break, summer vacation, or after the initial 2-year enrollment. If a student is unable to report for class, they are required to inform the faculty prior to class start time. If a student is unable to report for clinical rotation, they are required to inform the faculty and clinical personnel **prior** to their assigned shift. This must be done by phone, not email. Personal days may not be taken on evening/weekend rotations. Personal day requests for the last 30 days of the program are contingent on completion of all clinical requirements. Faculty reserves the right to deny any personal day requests. Unused personal days will not carry over from year to year.

\* - Students who are diagnosed with a communicable disease are required to IMMEDIATELY inform program faculty and refrain from attending clinical rotations.

## **Interview:**

Students will be allowed one day of their final year to attend interviews. If the student wishes, the day may be split into two 4-hour periods on two separate days. The Program director may require proof of attendance. This is a day intended for interviews **ONLY**. It will not be used for orientation, etc...

## **Overtime:**

Students may, at times, be required to work later than the scheduled shift or come in on a day off. In certain situations, primary concern must be for the patient. If the student is involved in a procedure and their shift is up, it is most often unethical to leave the procedure. Since the faculty monitors all student clinical time with a timeclock, any student that incurs more than 40 hours in one week of clinical rotation will be compensated by receiving time back. A schedule will be arranged by faculty for the student to receive time back within the same week if possible.

\* Program faculty reserves the right to modify attendance policies on case-to-case basis

## **Pregnancy Policy:**

It has been known for almost 100 years that ionizing radiation can be harmful to a developing fetus. The MTI School of Radiologic Technology believes that it has the responsibility to protect pregnant students while maintaining their privacy. **It is the choice of the student whether to declare a pregnancy or not.** The student should keep in mind that declaring their pregnancy will enable faculty to better assist them with radiation protection and missed schoolwork. A declaration of pregnancy (see following page) and any leave of absence (LOA) request (if applicable) may be made in writing to the Program Director with the expected date of delivery stated.

There are several methods radiographers can use to keep the abdominal dose below 50 mrem/month:

1. Always wear a 0.5 mm lead equivalent apron (preferably a wrap-around) during fluoroscopy, specials, and portables.
2. Utilize distance from the source to lower exposure.
3. Take advantage of the protection of the exposure booth.

Following these rules will help ensure that pregnant radiation workers may continue duties with assurance that the fetus is well protected from ionizing radiation.

Pregnant students should not come into contact with patients infected with:

1. Chickenpox (Varicella)
2. Herpes Zoster, Shingles (If student has not had chickenpox)
3. Measles (Rubeola)
4. German Measles (Rubella)

- This does not apply if students have had a disease or an immunization for the disease.

Students who have declared their pregnancy will be issued an extra film badge to be worn at waist level.

MTI Department of Radiologic Sciences  
Declaration of Pregnancy

1. She may continue in the program without clinical modification.
  - Material that outlines the possible risks associated with continuation in the program as may be appropriate and specific to pregnancy, namely the NRC Regulatory Guide 8.13 would be provided. Review of the material by the Medical Director/faculty with the student would be available.
  - Compliance with departmental radiation safety policy would be expected.
  - Clinical time and all assignments missed for maternity leave would be made up according to the leave policy, and as scheduled by the faculty.
  - Following complete recovery per written medical release from a qualified practitioner, the student would return to MTISRT. A maximum Major Medical Leave of 240 hours would be allowed should the practitioner deem it necessary.
2. She may continue in the program with clinical modification as based on individual need.
  - All elements outlined in option # 1 would apply.
  - Clinical assignments could be adjusted on an individual basis.
3. She may withdraw from the program.
  - Applicable academic/clinical credit upon withdrawal would be awarded on an individual basis; determination of the credit awarded would be based on the individual student's academic/clinical achievement. It would be possible for a student to withdraw and be awarded NO credit.

I have read and I understand the Pregnancy Policy. After careful consideration, I choose option \_\_\_\_\_. I understand that a counseling record will be placed in my file outlining specific details of the agreement between myself and the MTI Department of Radiologic Sciences. I also understand that I must provide written approval from my attending physician in order to return to activities related to the program.

---

Signature

Date

## **Tardiness**

Students enrolled in the MTI Department of Radiologic Sciences are expected to report to their assigned shifts 5 minutes before the scheduled time. This allows the students to mentally and physically prepare themselves for the day's experience. Tardiness will not be tolerated. The program policy for tardiness follows the procedure as outlined on pg. 43, "Unsatisfactory Progress".

Tardies may be issued in both the didactic and clinical setting. Students late for class will be issued a tardy. Since the department utilizes a timeclock, review of those records will be the primary method to determine tardiness in the clinical setting. Students will be required to make up the amount of time they were late.

Exceptions to this rule may only be made if the student contacts program faculty and explains their situation. Any call must be placed **prior** to the report time for their particular rotation. Faculty reserves the right to determine the validity of multiple or repeated situations and to deal with them on a case-to-case basis.

Tardiness will be defined as reporting for training less than half way through the assigned shift whether that be a class day or a clinical day. Reporting later than this will result in truancy.

## **Truancy**

Students who fail to report for class or clinical assignments will be subject to the following disciplinary action:

- Unless the student has prior faculty permission, first time offenders may be suspended and second time offenders will be subject to dismissal.

## **Trading of Shifts**

In the clinical setting, students will be assigned rotations. A student may trade rotations with a student in the same class. All trade requests must be presented on the proper request form (online) and approved by the Program Director or the Clinical Coordinator.

# AWARDS

## Radiologic Technology

There are two awards presented to students who have achieved outstanding progress in the clinical and academic areas of training. These awards will be presented to the student at the graduation ceremony following training.

### **Highest Academic Achievement:**

Sponsored by Bracco Diagnostics (E.R. Squibb)

1. Maintains a full time status through the last 5 semesters of the program
2. Holds highest cumulative GPA for the program
3. Meets all the obligations to graduate as set for the by the MTI School of Radiologic Technology

### **Outstanding Clinical Performance:**

Sponsored by Covidien

1. Maintains a full time status through the last 5 semesters of the program
2. Meets all the obligations to graduate as set for the by the MTI School of Radiologic Technology
3. This award is decided by vote. Technologists, staff, and students vote for the student who displayed the greatest clinical competence and demonstrated the highest level of patient care in the clinical setting.

### **Clinical Staff Award:**

This award is given to the technologist or Clinical Instructor that stands out as a role model for graduates. This technologist will exhibit the greatest level of compassion, technical knowledge, and teaching ability. Awards will be given for each of the two clinical sites utilized by MTI (Watertown and Mitchell area).

## School Messages

Due to factors such as geographic separation and busy schedules, a great deal of information will be disseminated via standard email to the students' MTI address.

**IT IS THE RESPONSIBILITY OF THE STUDENT TO REGULARLY CHECK THEIR EMAIL.** The departmental website is also utilized to post and provide information.

Faculty will not tolerate excuses for students being uninformed. Students are expected to check these sources frequently for up to date program information.

## Department Committees

The MTI Department of Radiologic Sciences, in accordance with JRCERT standards, maintains two standing committees:

1. Advisory Board – The Advisory Board has been established to ascertain the needs and the future of the program and its students, advise on program policy and procedure, and to assist MTI to meet the standards of accredited programs.
2. Admissions Committee – The MTI Department of Radiologic Sciences Admissions Committee assists in choosing new students from a large pool of applicants. Members of the Admissions Committee include faculty, partners in industry, and representatives from the MTI Office of Admissions.

# Complaint Resolution Policy

(As taken from the MTI handbook)

## Student Grievance Procedure (Mitchell School District)

(Note: Specific language of this policy may vary. See the MTI Vice President for Academic Affairs for details.)

Definitions: A grievance shall mean a complaint, which has been filed by a student. This grievance procedure is not applicable to situations for which other appeal and adjudication procedures are provided by state laws or in which the Board is without authority to act. Normal channels of communication, from student to instructor, to administrator, to Board of Education, shall be used whenever feasible in making clarification of questions of concern to the student before the grievance procedure is utilized. "Principal" shall be used to indicate the building principal, director, or designee.

Purpose: The primary purpose of this procedure is to secure, at the earliest level possible, equitable solutions to a claim of a complainant if the claim is justifiable. The proceedings shall be kept confidential at each level of this procedure.

Time: The number of days indicated at each level shall be regarded as a maximum and every effort shall be made to expedite the process. However, the time limits specified may be extended by mutual agreements of the complainant and the Administration. In the event a complaint is filed on or after May 1, the time limit stated hereafter shall include all calendar days so that the matter may be resolved before the close of the school term or as soon as possible thereafter.

Level One: Within five (5) days of the alleged violation, a student with a complaint shall first present it orally and informally to his/her instructor. If a decision cannot be resolved informally, the complaint and the decisions shall be PUT IN WRITING within five (5) days and referred to the next level.

Level Two: Within five (5) days after receiving the decision at Level One, the complainant may appeal the decision to the Principal of the school. This appeal shall be IN WRITING and shall be accompanied by the original complaint as well as copies of all previous supporting statements, evidence, and decisions. The "Principal" shall evaluate the evidence and render his/her decision within ten (10) days after receiving the appeal.

Level Three: If the complainant deems it desirable to carry the complaint beyond the decision reached at Level Two, he/she may, within ten (10) school days, file his/her complaint with the Superintendent or his/her designee. The appeal shall be IN WRITING and shall be accompanied by the original complaint as well as copies of all the previous supporting statements, evidence, and decisions. The Superintendent shall evaluate the evidence and render his/her decision within ten (10) school days after receiving the appeal.



Level Four: If the complainant deems it desirable to carry the complaint beyond the decision reached in Level Three, he/she may, within ten (10) school days, file his/her complaint with the Board of Education. The appeal shall be IN WRITING and shall be accompanied by the original complaint as well as copies of all previous supporting evidence and decisions. Upon receiving the complaint, the matter shall be placed on the agenda of the Board of Education for consideration at the next regular meeting of the Board of Education, and a final determination shall be made within thirty (30) calendar days from said meeting. To be included in a regular board meeting, the complaint must have been received at least seven (7) days before the scheduled meeting.

Withdrawal: A complaint may be withdrawn by the complainant at any level without prejudice or recourse.

Hearings and Decisions: At each of the above four levels, the complainant shall be given the opportunity to be present or to present evidence. All decisions at each level shall be IN WRITING and shall include supporting reasons. Copies of all decisions and recommendations shall be furnished promptly to all parties of interest.

Reprisals: No reprisal of any kind shall be taken by or against any party of legitimate interest or any legitimate participant in the grievance procedure by reason of such participation.

Preservation of Record: All proceedings external to the decision of the Board of Education shall be destroyed. However, any complainant who wishes the proceeding (relative to his/her own complaint) to be replaced in his/her records may achieve such action by filing a written request therefore.

Disclaimer: In the adoption and implementation of this grievance procedure, it shall be understood that the Board of Education is not a court of law and that the rules of jurisprudence shall not apply.

## **JRCERT Non-Compliance**

Any student that wishes to file a non-compliance complaint is asked to do so through standard channels. Questions about non-compliance should be brought to the attention of faculty. If the student feels that the program faculty is making no effort to resolve the issue, they may take it to the administration of MTI. If, at that point, the student still feels that their complaint is not being handled properly, they may contact the JRC and register a formal complaint of non-compliance. It is the right of the student to review and question the program's compliance of the Standards, but faculty asks that problems be brought to the program's attention before contacting the JRCERT. The Standards and contact information for the JRCERT can be found at [www.jrcert.org](http://www.jrcert.org).

## Controlled Substances

It is the policy of this program that any student convicted of controlled substance possession will be immediately dismissed from the program. If the student wishes to enroll in other MTI programs, the policy outlined in the MTI handbook will apply. Some clinical sites may require initial drug screening.

## Dismissal from the Program

Immediate dismissal from the program may result from the following documented infractions:

1. Gross insubordination
2. Dishonesty
3. Intoxication during scheduled hours
4. Truancy
5. Patient abuse
6. Failure to maintain 2.0 GPA in any technical course
7. Breach of probation
8. Theft
9. Gross negligence in the clinical setting
10. Violation of HIPAA regulations

**NOTE:** Immediate dismissal is not limited to the infractions above. Ultimately, the severity of an infraction and the resultant punishment is at the discretion of MTI and department faculty.

## Ethics

Radiologic science professionals have many responsibilities to fellow workers, physicians, and especially patients. There is no practical way to compile a list of these responsibilities, but the general term “Ethics” refers to an overall professional attitude that is required of the field. The following is not an all-inclusive list of examples, but it may guide the student radiographer to realize that ethics can be defined as “common sense respect for those around you”.

1. Students shall address patients with respect.
2. Students are reminded to maintain the patient’s modesty when performing procedures.
3. Student shall respect the rules of patient confidentiality.
4. Student shall not make personal problems burdensome to the patients or other personnel.
5. Students shall refer to physicians by their title (i.e. Dr. Jones).

# Evaluations

Evaluation tools are extremely important to continuing program improvement. The MTI Radiologic Sciences department utilizes several tools to track trends in all aspects of each program. These tools collect data which is analyzed each academic year.

## **Didactic Course:**

The students will evaluate each didactic course in order to facilitate syllabus improvement.

## **Students:**

Students will be evaluated weekly clinical rotation evaluations. An electronic evaluation will be completed by a registered technologist each week and must be posted to the clinical coordinator/instructor NLT 5PM of the following Monday. Specific forms may be accessed at [www.mitchelltech.edu/Departments/radtech](http://www.mitchelltech.edu/Departments/radtech).

They will be evaluated didactically through written tests over covered material. At midterm, faculty will meet with the individual student to assess overall student performance for the purpose of identifying potential shortcomings.

## **Clinical Sites:**

Clinical sites will be evaluated by the students each semester. This will help identify issues with individual sites.

## Facilities

### Instructional Services Center

The Instructional Services Center (ISC) provides a quiet place for students to study as well as program materials, national magazines, and books for student use. Additionally, the ISC offers help to students in reading, math, grammar, technical terminology, and spelling on an individual and group basis. Student tutors for several course areas are also available.

The Instructional Services Center supports a variety of instructional programs of the school. They are as follows:

1. Library - The library provides students with reference materials, periodicals, a collection of fiction, and other information related to students' programs of study. State and national newspapers are available for student use. The Internet, the worldwide computer network, is available for student research.
2. Assistance for students with special needs - Students who want to improve their basic learning skills may make use of these services. Assistance is offered in study skills, mathematics, reading, grammar, spelling, and technical tutoring on a one-to-one basis.
3. Computer Laboratory - Several computer laboratories are available with a variety of hardware and software. Some computers are located in the ISC for student use. Other labs are located throughout the building.

### Lockers

Students are provided with lockers at the major clinical site of each campus. Clinical sites are not responsible for lost or stolen student property.

## Field Trips

On occasion, the class will take field trips to conventions or other educational seminars. Students are expected to act responsibly and project a level of professionalism commensurate with the field. Students who act inappropriately will be subject to strict disciplinary action. Faculty reserves the right to determine the severity of the infraction and consequent disciplinary action.

Second year radiologic technology students will have three options to attend a national level conference. They can participate in fundraising activities to pay for their share of the class trip. If they choose not to participate in fundraising, but still want to attend, they will be required to provide the necessary funds themselves. If they choose not to attend at all, they will continue with clinical rotations.

Radiation therapy and second year radiologic technology students are **REQUIRED** to attend the state conference. Rooms and transportation are provided by MTI.

## **Graduation Requirements**

Students will be allowed to graduate if the following criteria are met:

1. The student has maintained a minimum 2.0 GPA in all technical courses.
2. The student has satisfactorily completed all required didactic and clinical coursework.
3. All financial obligations with MTI have been met.
4. All unexcused time has been made up.
5. All reference material has been returned to the program.

## **Identification Badges**

The student is required to wear an issued name badge any time they are wearing a scrub uniform.

The student is also required to wear a radiation badge any time they are at a clinical site where ionizing radiation is produced.

## **Infection Control / Work Related Injuries**

### **Infection Control**

It is the student's responsibility to report all suspected body fluid exposures to the faculty immediately.

### **School Related Injury**

Students are required to carry their own health coverage. Proof of coverage must be provided to the faculty prior to clinical rotations (Nov 30 of 1<sup>st</sup> year). Any injury, no matter how severe, should be immediately reported to faculty.

## **MTI Parking Regulations**

Parking signs are large and visible, with VISITOR, STAFF, and STUDENT PARKING clearly designated. All loading and unloading zones will be identified with large signs and yellow paint. Staff parking lots are designated as "Green Permit Parking Only." Students parking without the appropriate permit will be ticketed, fined and/or towed.

Campus parking for students is reserved on the west and south sides of the main campus of MTI in designated areas. Campus speed limits are not to exceed 5 miles per hour.

Students parking in fire lanes will be ticketed by city police. Students parking in non-designated areas may have vehicles towed away and are responsible for towing expenses.

All MTI staff are authorized to ticket vehicles that do not comply with the above stated regulations. In the event of a violation, students will be fined \$15.00. Fines will be assessed to a student's fee schedules, and students with outstanding fines will not be allowed to register or graduate until all fines are paid.

Parking violations will be handled at MTI in cooperation with the City Police Department.

Students are expected to bring any parking ticket they receive while on campus to the Business Office and to comply with the regulations.

## **Clinical Site Parking Regulations**

Each clinical site has its own set of regulations regarding parking. Normally, students are expected to park in the employee parking areas. Failure to observe the proper parking areas will result in implementation of the "Unsatisfactory Progress" policy on pg. 43.

## **Patient Holding**

This policy is in compliance with NCRP Report No. 105 Section 8.4.4.

Individual medical personnel should not have the responsibility of routinely holding patients during imaging procedures. In particular, this should not be a practice routinely demanded of individuals who are designated as radiation workers (i.e. any radiologic science professional/student). Patients should be held only after it is determined that available restraining devices are inadequate. Individuals holding patients for procedures should be provided with lead aprons and lead gloves and should be positioned so that no part of their body is exposed to the direct radiation beam. To assist in minimizing exposure, it is important to carefully collimate to the area of interest. Pregnant women or persons under the age of 18 should not be allowed to hold patients.

If the patient must be held during the X-ray exposure, aides, nurses, or members of the patient's family should be enlisted to assist in holding the patient. The principle of having other, non-occupational personnel hold patients, is to spread the dose out among many individuals instead of constantly exposing those who are employed to perform imaging studies and spend a lifetime working with radiation as a diagnostic or therapeutic tool.

## **Student Repeat**

**It is the policy of the MTI Department of Radiologic Sciences and the JRCERT to require students to be accompanied by a registered technologist or therapist when performing repeat films. No Exceptions.**

## Radiation Safety / Protection

The student shall not willfully expose themselves or any other person to x-ray or gamma rays unless such exposure is for diagnostic or therapeutic treatment.

1. Collimators, cones, and shielding must always be utilized when performing X-ray examinations.
2. Technologist / students shall remain behind leaded exposure booth when an x-ray tube is being energized except in times of necessity such as: Special procedures, fluoroscopy, portables, surgical procedures, or when it becomes necessary to assist the doctor or the patient.

- Appropriate protective apparel must be worn by any personnel working in a room where ionizing radiation is being produced (i.e. lead apron, gloves, thyroid shields, etc...).

3. Student radiation exposure is measured by OSL monitors. They must be worn whenever the student is at a clinical site. The device should be worn on the collar outside the apron. In case of pregnancy, a second one will be issued to be worn under the apron at waist level.

- OSL monitoring reports are posted quarterly and each student/technologist is required to initial the report as evidence they have reviewed it.

- The allowed radiation occupational exposure for one year is 5 rem.

- Maximum dose to a fetus is .5 rem for the entire gestational period.

- Students' dosimetry reports will be monitored quarterly. Any student that exceeds 1.25 rem in a quarter will be assigned alternate clinical rotations that do not involve OR, special procedures, or fluoroscopy assignments. The student will also receive additional radiation safety training.

- Lost badges will be replaced at the student expense. This will include the fee for not returning a badge, as well as the fee for a replacement.

**4. It is against departmental policy for any student to make radiographic exposures without the consent and supervision of faculty.**



## Record Maintenance / Student File

The MTI Department of Radiologic Sciences shall maintain records on each student enrolled in the program. The records are secure and maintained in the Program Director's office.

All transcript requests should be directed to the registrar according to the policy outlined in the MTI handbook.

## Resignation

**Resignation:** If a student chooses to resign, they must do so in writing to the Program Director. An exit interview is mandatory. The student must also fill out a withdrawal slip available at the Vice President for Academic Affairs office.

## Smoking Policy

MTI is a smoke-free, tobacco-free building. The MTI designated smoking areas are located outside the building.

When the student is at a clinical site, they are to observe the smoking policies of that particular facility. Students will utilize posted smoking areas only during their lunch break or during breaks.

Students should be aware that they are working in extremely sanitary environments. Cigarette smoke can remain in clothes for long periods of time and may become noticeable to staff and patients. If this becomes a problem, faculty reserves the right to request that a student refrain from smoking during clinical hours.

## Snow Emergency Policy

WEATHER-RELATED SCHOOL CLOSING: It can be assumed that MTI classes will be held as scheduled. **Students should use their own best judgment regarding road conditions.** If weather is threatening, students are not advised to jeopardize their safety by traveling in from outlying communities. Weather-related messages will be broadcast on area radio stations.

Please refer to "Class Attendance" on pg 49 for details

## Society Meetings and Memberships

Radiation Therapy and Second year Radiologic Technology students are required to become a member of the American Society of Radiologic Technologists. All students are required to become a member of the South Dakota Society of Radiologic Technologists. Membership dues are included in the student fees and are paid by MTI.

## Student Fundraising

Fundraising activities by each Radiologic Technology class are used to help defray expenses while attending a national/regional type of conference on a yearly basis. Fundraising for these activities is strictly on a volunteer basis and will be decided upon by the class as a whole.

All fundraising activities must be approved through the faculty and, ultimately, MTI. The amount to be raised will be determined on a yearly basis, depending on the destination and airline/fuel prices.

Each class will be required to raise funds for their class number plus two. Faculty members are generally active in the fundraising process. Due to budget constraints, the program can only send one faculty member each year.

Faculty may request the treasurer to tally the totals for each fundraising event if complaints arise that some students are not participating at the same level as the rest of the class. Appropriate action may be taken including omission of a student from access to the class account. Students, who choose not to participate in fundraising activities but still plan to attend the convention, are responsible for their own financial portion of the trip.

Monies from all fundraising activities, financial gifts to the class, etc., will first be used to pay for registration, transportation and lodging. If a class fails to raise adequate funds to attend a **faculty approved** national conference, then they will be responsible to come up with the remainder of the funds or pass the balance of their account to the next class.

Students will maintain an account with the Mitchell Technical Institute business office. A separate checking account may be maintained at a local institution for the purpose of obtaining monies on a timelier basis. Maximum balance on this account will be no more than \$500. Any expenditure greater than \$50 must be cleared with the program director.

Fundraising will be limited to the period of time that students are in the didactic phase of training. At that time, a minimum of \$25.00 per second year student must have been left in the account for graduation expenses and start up for the next class. Students that did not participate in fundraising activities, will be required to deposit \$25 prior to the account changing hands from second to first year. Excess funds will become the responsibility of the first year class when the account is turned over.

## Student Representative

Each year, the students will elect a class representative that will act as the student voice at all Advisory Board meetings and will serve as a liaison between the faculty and the student body. The class representative will also perform other duties as assigned. A class treasurer and secretary will also be appointed.

## Telephone

Instructional and administrative office telephones are not for student use. Emergency phone calls will only be relayed to the student if the caller has identified him/herself and the nature of the call. Messages will be taken for students and posted on the electronic message board in the cafeteria. It is the student's responsibility to check the message board regularly.

While students are performing clinical rotations, they are expected to use the phones of the facility for work related purposes only. Long distance personal calls are strictly prohibited and local personal calls should be made only if absolutely necessary. **Cell phones are also prohibited in the classroom and clinical setting except for during designated break periods.**

# Uniforms and Appearance

The MTI Department of Radiologic Sciences uniform is representative of Mitchell Technical Institute and of the Radiologic Science Professions. Students are required to meet these standards in order to project a professional image to patients, faculty and clinical staff.

## GROOMING & HYGIENE:

- Clean and neat appearance, not offensive, clothes tailored and properly fitted
- Conservative use of cosmetics, colognes, perfumes
- Fingernails must be well trimmed. Artificial nails and colored nail polish are prohibited.
- Conservative hair color and style; styles that will not come in contact with patients (hair that touches the student's shoulders must be pulled back)
- Limited accessories
- Visible body piercings are absolutely unacceptable
- Existing tatoos must be concealed or approved by faculty if not concealable
- Men must be well groomed and facial hair must be well trimmed

## UNIFORMS:

The uniform for students shall be a **navy** blue scrub top and pants. White, waist length lab jackets may also be worn. Style will vary by class and be selected by faculty. All tops / jackets must be adorned with the MTI Department of Radiologic Sciences Patch (Available in the bookstore) centered 1 inch below the shoulder seam on the left sleeve. Flared style pants are limited to a maximum of a 1 inch split in the seam. Scrubs **WILL NOT** be worn in conjunction with casual clothes (i.e. sweatshirt over the top).

- Clean & unwrinkled
- Hosiery/socks required
- Shoes must be white and in good condition; clean and/or polished
- Shirts worn under scrubs (may be long sleeve) must be tucked in and white with no visible print.

## CASUAL DRESS (When applicable)

Casual dress will be allowed on Mondays and Thursdays during the first year under the following guidelines:

Mondays:

- Allowed only in the event that casual wear is used as a fundraising event
- Casual wear is defined as blue jeans or neutral slacks and neutral shirt (T shirts are acceptable as long as they do not have offensive logos, etc...).

- Unacceptable: jogging suits (wind suits), tight-fitting, low-cut, spaghetti straps, or unwashed clothes; torn or frayed garments, dirty shoes, or discolored clothing. Sandals and or flip flops will be allowed in the summer semester ONLY.

Thursdays:

- May be used for a fundraising event upon majority class vote.
- Casual rules apply (as above) with the addition of an MTI Radiologic Sciences T shirt or sweat shirt. Students who choose not to purchase these items will be required to wear scrub uniforms as outlined above.

#### **SIMULATION/PRACTICE DAYS:**

- Scrubs will be required at any time the student is utilizing the lab. This includes **ANY** practice time as well as during **ALL** simulations.

#### **IDENTIFICATION BADGES:**

- ID badges must be worn at all times
- All identification tags must be visible and legible - upper torso

## **APPENDIX A**

*All program related forms can be found on the program website at:*

[www.mitchelltech.com/departments/radtech](http://www.mitchelltech.com/departments/radtech)

### ***Standards for an Accredited Educational Program in Radiologic Sciences***

A complete copy of the most recent JRC standards is available at: [www.jrcert.org](http://www.jrcert.org)

Go to the download page and choose the information you wish to access.

## MTI School of Radiologic Technology Program Assessment Plan

**Goal 1: Students will be didactically and clinically competent.**

<b>Outcome</b>	<b>Assessment Tool</b>	<b>Benchmark</b>	<b>Time Frame</b>	<b>Responsible Party</b>
1a. Students will demonstrate didactic and clinical competence	Enrollment and Graduation data from the Perkins Standards and Measures	Course completion rates shall meet or exceed 75% over a 5-year period	Annually	Vice President of Academic Affairs
1b. Students will perform routine examinations	Clinical Competency Evaluation Forms	Class average of 85% on randomly selected clinical competency evaluations from chest and spine exams	Annually during semesters 2 and 5	Clinical Coordinator
1c. Students will demonstrate knowledge of procedures and patient care	MTI Clinical Evaluation Form	Class average of "4" or above on statement #4	Annually during semesters 2, 4, and 5	Clinical Coordinator

**Goal 2: Students will possess problem solving and critical thinking skills.**

<b>Outcome</b>	<b>Assessment Tool</b>	<b>Benchmark</b>	<b>Time Frame</b>	<b>Responsible Party</b>
2a. Students will perform non-routine examinations	Clinical Competency Evaluations	Class average of 85% or above of randomly selected portable and trauma evaluations	Annually during semester 4	Clinical Coordinator
2b. Students will identify diagnostic quality images and correct non-quality images	RAD 234, Chapter 2, Film Critique 1 Test	Class average of 80% or above	Annually during semester 4	Clinical Coordinator
	RAD 236, Chapter 6, Film Critique 2 Test	Class average of 80% or above	Annually during semester 6	
2c. Students can recognize emergency patient conditions and initiate appropriate procedures	Call Drill Evaluation	Class average of 80% or above on statement #9	Annually during semester 4	Program Director Clinical Coordinator
	Graduate Survey	Class average of "3" or above on statement #6	Annually	Program Director Clinical Coordinator



**Goal 3: Students will demonstrate effective interpersonal and communication skills.**

<b>Outcome</b>	<b>Assessment Tool</b>	<b>Benchmark</b>	<b>Time Frame</b>	<b>Responsible Party</b>
3a. Appropriate interpersonal and communicating skills are demonstrated with peers and physicians	MTI Clinical Evaluation Form	Class average score of "4" or above on statement #7	Annually during semesters 2, 4, and 6	Clinical Coordinator
	Graduate Survey	Class average of "3" or above on statement #11	Annually	Program Director Placement Coordinator
3b. Appropriate interpersonal and communication skills with patients are demonstrated	Clinical Competency Evaluation	90% of class members will receive a "Yes" on items 3c, 5d, and 6c on randomly selected examinations	Annually	Clinical Coordinator
3c. Proficiency in written and oral communication skills which integrate computer technology are demonstrated	Scientific Paper	Class average of 80% or above	Annually during semester 4	Program Director Clinical Coordinator

**Goal 4: Students will experience career exploration and continued professional development.**

<b>Outcome</b>	<b>Assessment Tool</b>	<b>Benchmark</b>	<b>Time Frame</b>	<b>Responsible Party</b>
4a. Graduates will hold membership in professional association	Graduate survey	50% of graduates will be members of ASRT and/or state society	Annually	Program Director Placement Coordinator
4b. Students will have participated in a minimum of one local, state, or national seminar while enrolled	Record of attendance in professional seminars	85% of students will have participated in one or more seminars	Annually	Program Director

**Goal 5: The MTI Radiologic Technology program will graduate entry-level technologists who demonstrate professional ethics through their attitudes and behaviors.**

<b>Outcome</b>	<b>Assessment Tool</b>	<b>Benchmark</b>	<b>Time Frame</b>	<b>Responsible Party</b>
5a. Graduates will pass the ARRT exam	ARRT Registry Results	Class average of 85% on first attempt of registry exam	Annually	Program Director
5b. Graduates will perform as entry level technologists	Graduate survey	90% average of statements # 1-12 will rate	Annually	Program Director Placement
	Employer survey	"3" or above 85% of surveys will rate graduates "adequate or above"	Annually	Coordinator  Program Director Placement Coordinator
5c. Students will find employment within 6 months of graduation	Placement report	90% average of all graduates find employment within 6 months of graduation over a 5-year period	Annually	Placement Coordinator
5d. Students will demonstrate knowledge of professional ethics and attitudes	RAD 101 Chapter 20 worksheet ("Professional Ethics")	Class average of 85% or above	Annually	Program Director