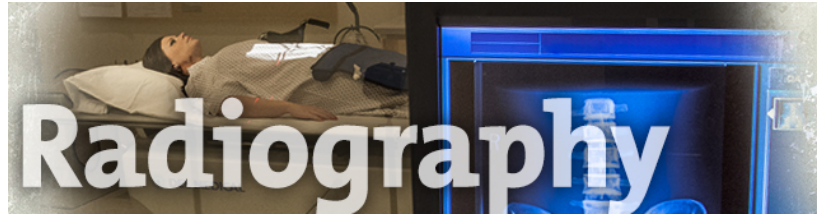


## Study Radiography at Minnesota State College Southeast in Winona

The Radiography Program equips students with educational experiences within a classroom and clinical setting and prepares them for a rewarding career in medical imaging.



Radiographers perform x-ray imaging in hospitals, clinics, and advanced medical imaging centers, working directly with other health care teams in providing diagnostic radiology services in a range of clinical settings including surgery and trauma. They work closely with radiologists, the physicians who interpret medical images for diagnosis. Administering ionizing radiation, the radiographer produces images of any designated body part, including bones, joints, and internal organs. Emphasis is placed on radiation protection and quality patient care. The radiographer instructs and positions patients, manipulates x-ray equipment, selects appropriate exposure factors, provides radiation protection for the patient and self, processes images, evaluates radiographic image quality, and carries out quality control activities. Radiographers play a key role in the medical team and work in many areas outside the Radiology Department including surgery, emergency/trauma department, cardiac and intensive care and patient rooms.

Successful students in the Radiography program must demonstrate an aptitude for math and science in order to handle the strenuous curriculum and grasp the theories and knowledge of the profession. It takes hard work and determination to become a radiographer, along with a sincere desire to help people who are ill or injured and to use highly technical equipment in a clinical health care setting. Students will be expected to handle stressful situations and make multiple decisions regarding patient care during clinical course work. Student radiographers must be in good emotional and physical health. This profession requires a significant amount of physical body movement in assisting patients and the use of radiographic equipment. Students with certain chronic health problems may face many challenges due to the physical demands of the profession and may be less successful in carrying out required duties. For a list of essential physical abilities, see Admission Process and Checklist Packet pages 7-8.

You can look forward to one-on-one attention from excellent faculty. The program is housed on the Winona campus and the state-of-the-art energized x-ray laboratory offers computed radiography and direct digital technology. You will be well trained in all aspects of the appropriate use of technology and caring for the needs of patients.

There are many opportunities to advance beyond Diagnostic Radiology and students will be given an opportunity to observe many modalities while in the program. Medical imaging modalities include Computed Tomography, Magnetic Resonance Imaging, Breast Imaging, Bone Densitometry, Cardiac/Vascular Interventional Procedures, Quality Management, Medical Sonography, Nuclear Medicine Technology, Radiation Therapy, and Radiologist Assistant. The last four listed will require an additional one to four years of education.

## How the Radiography Program Works

The Radiography Program is a 5 consecutive semester, 21-months, 71 credits program in which academic and clinical courses are offered. Approximately 14 new students are accepted each fall. Admission is based on GPA and other requirements (see Applicant Scoring Tool on page 7). The 1st, 3rd and part of the 5th semesters are spent on campus, taking required courses and working in the laboratory. During the 2nd, 4th, and the other part of the 5th semesters, students travel off campus to attend clinical assignments where they work alongside registered technologists with real patients as they put into practice what they have learned the previous semester. Clinical assignments consist of approximately 36 hours per week. Clinical sites are within 120 miles of Winona and transportation and other expenses are the responsibility of the student. The student must plan part-time jobs and/or other life commitments around educational responsibilities. Success in the program should be a top priority.

- Curriculum Sequence – See Page 5
- Clinical Setting Affiliates – See Page 6

Graduates will earn an Associates of Applied Science (A.A.S.) degree & will be eligible to take the national certification examination in Radiography by the American Registry of Radiologic Technologists (ARRT) after all course work & clinical competencies have been met. Students may choose to seek employment as an entry-level radiographer or continue their education in an advanced field of study.

## Program Accreditation

The MSC Southeast Radiography program is accredited by the Joint Review Committee on Education in Radiologic Technology (<http://jrcert.org/>), the only agency recognized by the United States Department of Education (USDE) and the Council for Higher Education Accreditation (CHEA), for the accreditation of traditional and distance delivery educational programs in radiography, radiation therapy, magnetic resonance, and medical dosimetry. They may be contacted at: JRCERT, 20 N. Wacker Drive, Suite 900, Chicago, IL 60606-2901 Phone: 312.704.5300, Fax: 312.704.5304, Email: [mail@jrcert.org](mailto:mail@jrcert.org). The program complies with the JRCERT Standards for an accredited educational program in the radiologic sciences.

## Program Effectiveness Data

The MSC Southeast Radiography Program has the total capacity to enroll 28 students. That generally comprises 14 students in each class. The JRCERT, our accrediting body, sets this number based on the number of clinical sites, retention rate, pass rate, and job placement within one year of graduation. These criteria are averaged over a five-year period. MSC-ST is a relatively new program with only 5 years of data; therefore if you access the [JRCERT](#) website, the data will not be available. You can [download a PDF](#) compiling 5 years of Radiography Program Effectiveness Data from the college's website.

## Employment Outlook

The US News & World Report on the hottest jobs for 2014 listed radiologic technologists at #32 and predicted the demand will increase nearly 20.8 percent by 2022. According to a nationwide survey of program directors by the American Society of Radiologic Technologists called [Enrollment Snapshot of Radiography, Radiation Therapy and Nuclear Medicine Technology Programs – 2014](#), the job placement percent rate of students finding employment in their discipline within six months of graduation throughout the West North Central region was at 87.9% in 2013. This is up from 82.3% in 2010. Medical Imaging jobs are seeing a rise in demand throughout the United States.

## Program Mission Statement

The Minnesota State College Southeast Radiography program's mission is to educate students to become competent, entry-level radiographers who provide quality patient care in an evolving healthcare environment. To learn more, view our [radiography success manual](#).

## Equal Employment and Educational Opportunity

The College is committed to providing and promoting equal employment and educational opportunities, and supporting a positive environment, for all persons without regard to race, sex, color, creed, religion, age, national origin, marital status, disability, status with regard to public assistance, sexual orientation, or membership or activity in a local commission as defined by law.

## State of Minnesota Background Study

Minnesota Law requires any person who provides a service that involves direct contact with patients and residents in health care facilities licensed by the Minnesota Department of Health to have a background study conducted by the state. An individual who is disqualified from having direct patient contact as a result of a background study, and whose disqualification is not set aside by the Commissioner of Health, will not be permitted to participate in a clinical placement in a Minnesota-licensed health care facility. Failure to participate in a clinical placement required by the academic program will result in ineligibility to qualify for a degree in the program.

Students may review the following link which outlines the types of disqualifying crimes and/or contact the program director. <https://www.revisor.mn.gov/statutes/?id=245C.15>

## ARRT Background Study

When determining eligibility for taking the Radiography certification examination, the American Registry of Radiologic Technologists (ARRT) requires that the applicant be of good moral character. Conviction of a crime, including a felony, a gross misdemeanor with the sole exception of speeding and parking violations is considered to be in violation of the Standards of Ethics. Such violations must be cleared by the ARRT before the applicant can be assigned to an examination.

The ARRT Ethics Pre-Application Review is reserved for those who are not enrolled in an ARRT-recognized education program, or are more than six months until graduating from an ARRT-recognized education program.

[https://www.arrt.org/ Ethics Review Pre-Application Packet \(PDF\)](https://www.arrt.org/Ethics_Review_Pre-Application_Packet_(PDF))

*\*Minnesota State College Southeast is committed to providing and promoting equal employment and educational opportunities, and supporting a positive environment for all persons without regard to race, sex, color, creed, religion, age, national origin, marital status, disability, status with regard to public assistance, sexual orientation, or membership or activity in a local commission as defined by law.*

## Radiography (AAS) Curriculum Sequence

<u>Course</u>	<u>Course Title</u>	<u>Credits</u>	<u>Total Credits 71</u>
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*These courses must be taken prior to any RAD courses. All credits count towards the Radiography Major.*

ENGL2515	College Writing I or equivalent	3	
BIOL2511	Human Anatomy	4	
MATH2520	College Algebra or equivalent	<u>3</u>	
		<b>10</b>	

### Year 1:

#### 1. Fall:

RADT2601	Introduction to Radiologic Sciences	4	
RADT2605	Radiographic Imaging I	3	
RADT2611	Radiographic Positioning and Procedures 1	5	
BIOL2512	*Human Physiology	<u>4</u>	
		<b>16</b>	

#### 2. Spring:

RADT2617	Clinical Practicum I (12 weeks--36 hours/week)	9	
RADT2663	Modalities (online) (4 days-clinical observation)	2	
	*Social Sciences requirement (online)	<u>3</u>	
		<b>14</b>	

#### 3. Summer:

RADT2625	Radiographic Positioning and Procedures II	3	
RADT2630	Radiographic Imaging II	3	
	*Humanities Requirement	<u>3</u>	
		<b>9</b>	

### Year 2:

#### 4. Fall:

RADT2641	Clinical Practicum II (16 weeks--36 hours/week)	12	
RADT2635	Radiographic Pathology (online)	<u>1</u>	
		<b>13</b>	

#### 5. Spring:

RADT2653	Radiographic Imaging III (hybrid)	2	
RADT2620	Equipment Operation & Maintenance (12 weeks)	2	
RADT2650	Radiation Protection and Biology (12 weeks)	2	
RADT2673	Clinical Practicum III (4 weeks--36 hours/week)	<u>3</u>	
		<b>9</b>	

\* 2000 level General Education courses required unless specified

RADT2686	Sectional Anatomy	3	Elective
RADT2680	Introduction to Mammography	2	Elective
RADT2660	Computed Tomography	2	Elective

*The College reserves the right to change courses titles, content, & credit structure. Students with a documented disability may request classroom/lab accommodations by notifying instructors and a college counselor. Revised 9/15/15*

## Clinical Setting Affiliates and Telephone Numbers

<b>Allina Health Systems</b> 1175 Nininger Road, Hastings, MN 55033 Distance from Winona: (river road) 90.4 mi – about 1 hour 50 minutes Distance from Winona: ( Rochester to 52 N) 114 mi–about 1 hour 55 min	Hospital main (651) 480 4100 Dept. direct (651) 404 1630
<b>Gundersen Health System</b> 1900 South Avenue, La Crosse, WI 54601 Distance from Winona: 30 miles – about 35 minutes	Hospital Main (608) 782 7300 Dept. Direct (608) 775 2503
<b>Gundersen Tri-County Hospital &amp; Clinics</b> 18606 Ervin Street, Whitehall, WI 54773 Distance from Winona: 41.6 miles – about 54 minutes	Hospital Main (715) 538 4355 Dept. Direct (715) 538 4361
<b>Guttenberg Municipal Hospital</b> 200 Main Street, Guttenberg, IA 52052 Distance from Winona: 117 mi – about 2 hours 21 minutes	Hospital main (563) 252 1121 Dept. direct (563) 252 5552
<b>Mayo Health System-Cannon Falls</b> 32021 County 24 Blvd., Cannon Falls, MN 55009 Distance from Winona: 93.4 miles – about 1 hour 28 minutes	Hospital Main 507-263-6000 Dept. direct (507) 263 9782
<b>Mayo Health System –Red Wing</b> 701 Hewitt Boulevard, Red Wing, MN 55066 Distance from Winona: 67.4 mi – about 1 hour 15 minutes.	Hospital main (651) 267 5000 Dept. direct (651) 267 5250
<b>Mayo Health System – Waukon Clinic</b> 105 East Main Street, Waukon, IA 52171 Distance from Winona: 65 mi – about 1 hour 30 minutes	Clinic main (563) 568 3449 Or (800) 707 2045
<b>Palmer Lutheran Health Center</b> 112 Jefferson St., West Union, IA 52175 Distance from Winona: 89.5 mi – about 1 hour 50 minutes	Hospital main (563) 422 9741 ask for Radiology dept.
<b>Tomah Memorial Hospital</b> 321 Butts Avenue, Tomah, WI 54660 Distance from Winona: 65.1 miles – about 1 hour 7 minutes	Hospital main (608) 372 2181 Dept. direct (608) 374 0361
<b>Tomah VA Medical Center</b> 500 E. Veterans Street, Tomah, WI 54660 Distance from Winona: 70.5 mi – about 1 hour 10 minutes	Hospital main (608) 372 3971 (800) 872 8662
<b>Veteran’s Memorial Hospital</b> 401 1st Street Southeast, Waukon, IA 52172 Distance from Winona: 65 mi – about 1 hour 30 minutes	Hospital main (563) 568 3411 Dept. direct (563) 568 5500
<b>Winneshiek Medical Center</b> 901 Montgomery Street, Decorah, IA 52101 Distance from Winona: 66 mi – 1 hour 23 minutes	Hospital main (563) 387 2911 Dept. direct (563) 387 3022
<b>Winona Health</b> 855 Mankato Ave, Winona, MN 55987 Distance from Winona: 0.8 mi – about 3 minutes	Hospital main (507) 454 3650 or Department direct (507) 457 4320

## Radiography Program Applicant Scoring Tool

This form will be used by the admissions staff of Southeast Technical to determine applicant's ranking for admission to the Radiography program. *It is provided on an informational basis only; you need not fill it out or return with your application.*

Applicant Name \_\_\_\_\_

<u>GPA</u>	<u>BIOL2511 (Anatomy)</u>	<u>*BIOL2512 (Physiology)</u>
4.0- 3.5-----20 points	A ----- 3 points	Yes _____
3.49 – 3.0----- 15 points	B ----- 2 points	No _____
2.99- 2.50----- 10 points	C ----- 1 point	
2.49- 2.0-----5 points		
<u>MATH2520 (College Algebra or equivalent)</u>	<u>ENGL2515 (College English or equivalent)</u>	<u>Patient Care Experience</u>
A ----- 3 points	A ----- 3 points	Yes ----- 1 point
B ----- 2 points	B ----- 2 points	No ----- 0 points
C ----- 1 point	C ----- 1 point	

	Results	Score
<u>GPA (OVERALL)</u>	-----	-----
<u>BIOL 2511(GRADE)</u>	-----	-----
<u>BIOL 2512*(GRADE)</u>	-----	-----
<u>College Algebra or equivalent 2000 level course (GRADE)</u>	-----	-----
<u>College English or equivalent 2000 level course (GRADE)</u>	-----	-----
<u>Patient Care Experience (SCORE)</u>	-----	-----

*\*optional*

Total \_\_\_\_\_

Accepted \_\_\_\_\_

Denied \_\_\_\_\_

Revised 2/2/15