

# Radiologic Technology

## Degree Type

Associate of Science

The acquisition of medical imaging is usually carried out by the radiographer, often known as a radiologic technologist. Candidates and R.T.s are held to stringent ethics standards in order to be eligible for certification and registration.

X-rays were discovered by Wilhelm Conrad Roentgen on November 8, 1895. Since the initial discovery, technology has evolved rapidly. Radiography includes diagnostic radiography as well as additional imaging modalities such as mammography, computed tomography (CT), magnetic resonance imaging (MRI), PET-CT, PET-MRI, cardiac-interventional radiography, vascular-interventional radiography, quality management (QM), bone densitometry, nuclear medicine (NM), radiation therapy, and sonography. Radiography has been an indispensable diagnostic tool of modern medicine. Broken bones can be aligned, ulcers can be detected, and many other injuries and conditions can be treated when the exact nature is known to the physician.

## What is a Radiologic Technologist?

A Radiologic Technologist is a scientific artist who works as part of the health professional team. With this art, they contribute to the diagnosis and treatment of the patient. They are responsible for the accurate demonstration of body structures on a radiograph or other image receptor. The Radiologic Technologist determines the proper exposure factor, manipulates medical imaging equipment, evaluates the radiographic images for quality and provides for patient protection and comfort.

## Program Overview

The Radiologic Technology Program of the River Valley Community College has been developed with the purpose of providing competent Radiographers for the Imaging field. A Radiographer is an important member of the Allied Health Care team. They are responsible for producing high quality medical images for diagnostic purposes. Radiographic procedures are performed on patients of all ages. The program also offers student experiences in the most recent imaging advancements and technology for the acquisition and processing of images in the medical field. Including the use of portable equipment in operating room, emergency room and intensive care units.

## Radiography Program Mission Statement:

The mission of the Radiologic Technology Program at RVCC is to educate students to become competent radiographers who provide quality imaging services to healthcare facilities.

Upon completion of the program, graduates are eligible to sit for the certification examination conducted by the American Registry of Radiologic Technologists to practice as a Registered Radiologic Technologist.

## Program Accreditation

The RVCC Radiologic Technology Program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 N. Wacker Drive, Suite 2850, Chicago, IL 60606-3182. ([www.jrcert.org](http://www.jrcert.org)). RVCC's Radiologic Technology Program earned 5-year accreditation in 2021. The next site visit is scheduled for fall 2026.

# Admission Requirements

All new applicants must:

1. Submit a completed admission application (Application Deadline will be December 31st) for the following year.
2. Two (2) letters of recommendation must be submitted.
3. Eighteen (18) years of age or older by the starting school year.
4. Have a college or high school current cumulative GPA of 2.5.
5. High school or college physics within the last 10 years with a "C" or better **OR** high school or college biology with lab, within the last 10 years with a "C" or better.
6. Official transcripts
  - a. High school or GED scores
  - b. College transcripts
7. One eight (8) hours observation/shadow experience in a radiology department is not required, but highly recommended.
8. Schedule and attend a faculty interview and be considered a "recommended" applicant per faculty determination.
9. Attend an on campus or previously recorded "Info Session"

Criminal background checks, fingerprinting, immunization records and CPR certification may be required for clinical placement and must be submitted prior to starting a clinical practicum. The costs of these are the responsibility of the student. For additional RADT requirements please see the program package at [www.rivervalley.edu](http://www.rivervalley.edu).

Note:

- 1) Anatomy and Physiology I and II courses with a "C" or higher grade are highly recommended prior to applying to program.
- 2) Students with a C- in any Liberal Arts Core courses will need to repeat the course and will have only (2) two chances to pass with a "C" or higher.
- 3) In the case of a "F" or failure grade, students will have one chance to pass with a "C" or better in order to be eligible for the program.
- 4) ***Meeting minimal requirements does not guarantee acceptance.***

## Curriculum

The curriculum of the program was designed using as a basis curricular recommendations of the American Society of Radiologic Technology, the clinical competencies delineated by the American Registry for Radiologic Technology and the standards for accreditation establish from the Joint Review Committee on Education in Radiologic Technology. These organizations standardize education and accreditation of all programs in Radiologic Technology in the United States.

The program strives to provide the community with an affordable and accessible 21-month educational program where students will learn the appropriate use of technology, and patient care skills to be used in the health care environment. All students must complete the curriculum within a three year period from the date of matriculation.

## EDUCATIONAL OUTCOMES

To prepare students/graduates to demonstrate professional values and ethical behaviors in the work place, graduates will:

- demonstrate positive ethical behaviors
- assist the patients with consideration and respect to their personal beliefs and without discrimination
- conduct themselves in a professional manner

To prepare students/graduates to demonstrate competencies in the essential skills of medical imaging, graduates will:

- Competently practice general diagnostic medical radiography in any clinical setting
- practice radiation protection and radiation safety techniques in ways that minimizes
- radiation exposure to patients, self and other
- meet the clinical competency requirements for each semester
- participate in professional activities and continuing education

To prepare students/graduates to communicate effectively and professionally in the medical environment, graduates will:

- demonstrate good communication skills

To prepare students/graduates to develop critical thinking and problem solving skills, graduates will:

- think critically to act appropriately in solving problems of non-routine and emergency situations

To prepare graduates to successfully meet entry level expectations of employers, graduates will:

- perform at entry level expectation
- successfully complete the radiologic technology program
- Become employed within one year of graduation
- promote continued professional and personal growth and lifelong learning

## Curriculum Grading and Progression Through Program

All students must pass all Clinical Practicums with a "B" or higher; all other RADT courses with a "C+" or higher; and all Core Liberal Arts courses with "C" or higher. All Radiologic Technology Program courses are based on a 10-points scale. Upon successful completion of the program students will receive an Associate in Science degree in Radiologic Technology from the College.

## Curriculum Flexibility

The curriculum may be completed in two to three years. Each curriculum plan is individualize for each student and done so with the Radiologic Technology academic advisor. All students must complete the curriculum within a four year period from the date of their matriculation.

## Clinical Placement

1. The program Clinical Coordinator is responsible for: placing all students to the clinical practicum and arranging all contractual agreement between clinical placements.
2. Students should expect to commute long distance for clinical placement. This commute is expected due to the rural nature of the college location and site availability.
3. Liability insurance is required to engage in clinical placements.
4. Students will be required to purchase uniforms according to RVCC Radiologic Technology clinical dress code.
5. Students must demonstrate competence in all 37 mandatory and 15 elective procedures required by the ARRT (American Registry of Radiologic Technology) prior to graduation.

In Accordance with section 504 of the 1973 Vocational Rehabilitation Act and the Americans with Disabilities Act (PL\_101\_336), the Radiologic Technology program of River Valley Community College has established an Essential functions list to ensure student success in their discipline. These standards are not meant to be admissions criteria but serve as a guide for successful completion of the clinical aspect of the Radiologic Technology program. River Valley Community College is committed to providing reasonable accommodations to students with disabilities as defined by the American with Disabilities Act. These standards will serve as a guide for the student to be able to become a successful Radiographer.

Due to the physical requirements of the job as a Radiographer, prospective students should be aware that occasional lifting and moving of heavy objects is part of the profession. Any student with a history of physical limitations is advised to consult a family health care provider prior to enrolling in the program.

## Requirements for Graduation

To earn an Associate Degree in Radiologic Technology from River Valley Community College, a student must:

- Successfully complete both the didactic and all clinical competencies with three years;
- Achieve a cumulative grade point average (cGPA) of 2.0 or higher in all courses taken at RVCC (including remedial/developmental credits taken);
- Complete the [Intent to Graduate](#).

## Essential functions list

1. Reach and manipulate equipment to its highest position (6'). Can raise objects from a lower to a higher position or move objects horizontally from position to position. (This function requires the substantial use of the upper extremities and back muscles.)
2. Move and stand with wheelchair and/ or stretcher and help patient on/off imaging table.
3. Possess mobility, coordination and strength to push, pull or transfer heavy objects. Lift a minimum of 50 pound and ensure patient safety.
4. Possess manual dexterity, mobility, and stamina to perform CPR
5. Move from room to room and maneuver in small spaces.
6. Demonstrate manual dexterity to perform necessary manipulation such as drawing doses with syringes, manipulating locks, sterile and aseptic techniques.
7. Use sufficient correct eyesight to observe patients and evaluate radiographic quality.
8. Visually monitor patients/charts/machine indicator lights in dimly lit conditions
9. Read and apply appropriate information and instructions contained in requisitions, notes and patient charts.
10. Possess sufficient hearing to assess patient's needs, follow instructions, communicate with other health care workers, as well as respond to audible sounds of radiographic equipment. (Please comment if corrective devices are required.)
11. Communicate in a clear and concise manner with patients of all ages, including obtaining health history and pertinent information.
12. Understand and apply clinical instructions given by department personnel
13. Able to read, comprehend, and write legibly in the English language
14. Be able to adapt to changing environments and schedules
15. Establish rapport with fellow students, coworkers, patients and families
16. Function under stressful conditions
17. Oriented to reality and not mentally impaired by mind-altering substances.
18. Able to convey sensitivity, respect, tact, and a mentally healthy attitude
19. Endure a minimum of two hours of didactic instruction in a normal classroom environment.
20. Have physical stamina to stand and walk for 8 hours or more in a clinical setting.
21. Can bend the body downward and forward by bending at the spine and waist (This factor requires full use of lower extremities and back muscles). Can flex and extend all joints freely.

### NOTE

\* All numbered courses listed have co/prerequisites. See course descriptions for requirements.

Total Credits	69-70
Course Sequencing	

## First Year: Fall Semester

Item #	Title	Credits
RADT101R	Introduction to Radiologic Technology & Clinical Simulated Lab Practicum	2
RADT110R	Patient Care & Medical Terminology	2
RADT115R	Radiographic Positioning & Procedures I	3
BIOL201R	Anatomy and Physiology I	4
RADT132R	Principles of Radiographic Exposure, Image Acquisition & Processing	3
MATH110R	Functions & Modeling I	4

## First Year: Spring Semester

Item #	Title	Credits
RADT120R	Radiation Physics & Imaging Equipment	2
RADT121R	Radiologic Technology Clinical Practicum I	4
RADT215R	Radiographic Positioning/Procedures II and Contrast Media	3
BIOL202R	Anatomy and Physiology II	4
ENGL102R	College Composition	3-4

## First Year: Summer Semester

Item #	Title	Credits
RADT122R	Radiologic Technology Clinical Practicum II	4
RADT218R	Radiographic Positioning & Procedures III	2

## Second Year: Fall Semester

Item #	Title	Credits
RADT223R	Radiologic Technology Clinical Practicum III	5
RADT228R	Radiation Biology & Protection	2
RADT229R	Cross Sectional Anatomy	2
	Social Science Elective	3
	Computer Technology Elective	3

## Second Year: Spring Semester

Item #	Title	Credits
RADT214R	Radiologic Pathology & Imaging Critique	2
RADT224R	Radiologic Technology Clinical Practicum IV	5
RADT235R	Quality Assurance, Ethical and Legal Issues	2
RADT240R	Introduction to Imaging Modalities	1
RADT245R	Radiologic Technology Registry Review	1
	Humanities/Fine Arts/World Language Elective	3